

SERVICE  
MANUAL 2235

**marantz**

model 2235

*Stereophonic Receiver*

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## INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2235 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instruction should be read carefully. No attempt should be made to proceed without a good understanding of the operation in the receiver.

The parts list furnishes information by which replacement part may be ordered from the Marantz Company. A simple description is included for parts which can be usually be obtained through local suppliers.

### 1. P.W. BOARD

As can be seen from the circuit diagram, the chassis of Model 2235 consists of following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

- |   |                             |
|---|-----------------------------|
| 1. FM Front End   | mounted on P.W. Board, P100 |
| 2. AM Tuner   | mounted on P.W. Board, P150 |
| 3. FM IF Amplifier                                      | mounted on P.W. Board, P200 |
| 4. MPX Stereo Decoder                                   | mounted on P.W. Board, P300 |
| 5. Dolby Level  | mounted on P.W. Board, PC01 |
| 6. Antenna Muting                                       | mounted on P.W. Board, PU01 |
| 7. Function Lamp  | mounted on P.W. Board, PY01 |
| 8. Dial Lamp  | mounted on P.W. Board, PZ01 |
| 9. Dolby FM, Monitor, Mono and Hi Filter Switch         | mounted on P.W. Board PH01  |
| 10. Loudness, FM Muting, Main and Remote Speaker Switch | mounted on P.W. Board, PT01 |
| 11. Phono Amplifier                                     | mounted on P.W. Board, P400 |
| 12. Pre and Tone Amplifier                              | mounted on P.W. Board, PE01 |
| 13. Main Amplifier                                      | mounted on P.W. Board, P700 |
| 14. Power Supply  | mounted on P.W. Board, P800 |

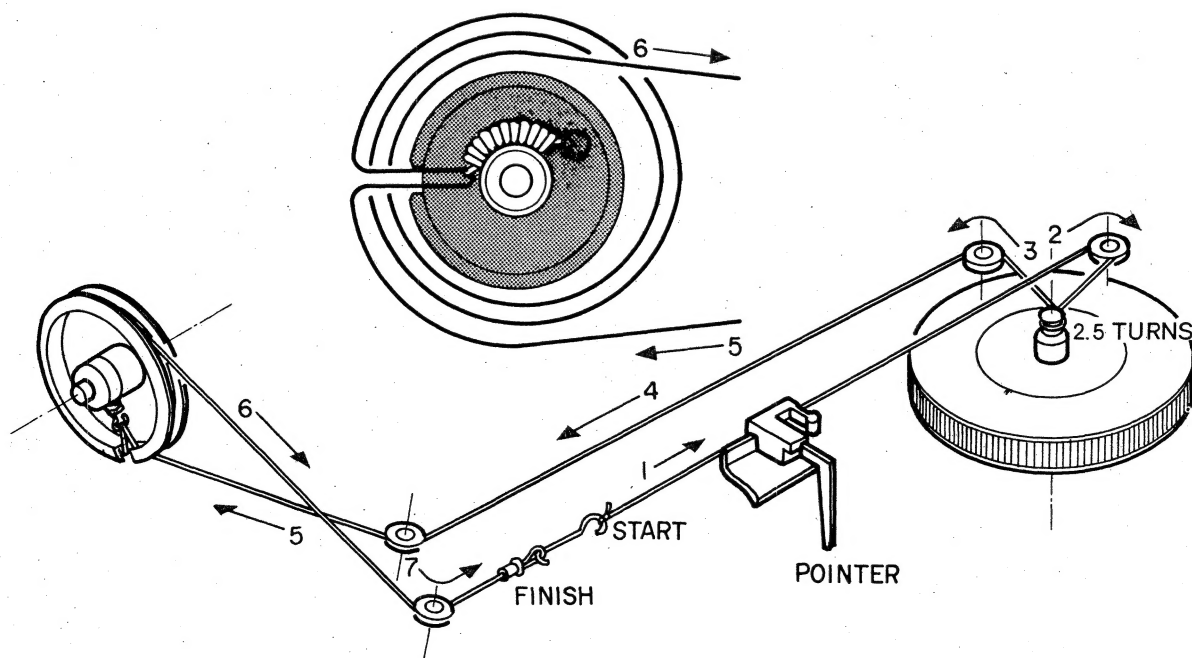


Figure 1. Dial Stringing



## 2. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the Model 2235 Receiver.

**Table 1. Test Equipment Required for Servicing**

Item	Manufacturer and Model No.	Use
AM Signal Generator		Signal source for AM alignment.
Test Loop		Used with AM Signal generator.
FM Signal Generator	Less than 0.3% distortion	Signal source for FM alignment.
Stereo Modulator	Less than 0.3% distortion	Stereo separation alignment and trouble shooting.
Frequency Counter		MPX Oscillator adjustment (VCO).
Audio Oscillator	Weston Model CVO-100P, less than 0.02% residual distortion is required.	Sinewave and squarewave signal source.
Oscilloscope	High sensitivity with DC horizontal and vertical amplifiers.	Waveform analysis and trouble shooting and ASO alignment.
VTVM	With AC, DC, RF range	Voltage measurements.
Circuit Tester		Trouble shooting.
AC Wattmeter	Simpson, Model 380	Monitors primary power to Amplifier.
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition.
Line Voltmeter	Commercial Grade (0-150V AC)	Monitors voltage of primary power to amplifier.
Variable Autotransformer (0-140V AC, 10 amps)	Powerstat, Model 116B	Adjusts level of primary power to amplifier.
Shorting Plug	Use phono plug with 600 ohm across center pin and shell.	Shorts amplifier input to eliminate noise pickup.
Output Load (8 ohms, $\pm 1\%$ 100W)	Commercial Grade	Provides 8-ohm load for amplifier output termination.
Output Load (4 ohms, $\pm 1\%$ 100W)	Commercial Grade	Provides 4-ohm load for amplifier output termination.

## 3. AM ALIGNMENT PROCEDURES

### 3.1 AM IF Alignment

1. Connect a sweep generator to the J153 and an alignment scope to the test point R167 (outside).
2. Rotate each core of IF transformer L153 for maximum height and flat top symmetrical response.

### 3.2 AM Frequency Range and Tracking Alignment

1. Set AM signal generator to 515kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end) and adjust the oscillator coil L152 for maximum audio output.
2. Set the signal generator to 1650kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor for maximum audio output.

3. Repeat the steps 1 and 2 until no further adjustment is necessary.
4. Set the generator to 600kHz and tune the receiver to the same frequency and adjust a slug core of AM ferrite rod antenna and RF coil L151 for maximum output.
5. Set the generator to 1400kHz and tune the receiver to the same frequency and adjust both trimming capacitors of antenna and RF tuned circuit for maximum output.
6. Repeat the steps 4 and 5 until no further adjustment is necessary.

Note: During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

### 3.3 AM Signal Strength Meter Adjustment

Set the AM Signal generator to 1000kHz with  $5\text{K}\mu\text{V}$ , and adjust R178 so that the signal strength meter may read 80% of the full scale.

## 4. FM ALIGNMENT PROCEDURES

1. Connect an FM signal generator to the FM ANTENNA terminals and an oscilloscope and an audio distortion analyzer to the TAPE 1 MONITOR OUT jacks on the rear panel.
2. Set the FM SG to 87MHz and provide about 3 to  $5\mu\text{V}$ . Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L104 to obtain maximum audio output.
3. Set the FM SG to 109MHz and provide about 3 to  $5\mu\text{V}$  output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C106 for maximum output.
4. Repeat the steps 2 and 3 until no further adjustment is necessary.
5. Set the FM SG to 90MHz and tune the receiver to the same frequency. Decrease signal generator output until the audio output level decreases with the decreasing generator output. Adjust the antenna coil L101, RF coils L102 and L103 and IF transformer L106 for minimum audio distortion.
6. Set the FM SG to 106 MHz and tune the receiver to the same frequency. Adjust the trimming capacitor C102, C104 and C105 for minimum distortion.
7. Repeat the steps 5 and 6 until no further adjustment is necessary.
8. Adjust the secondary core (upper) of discriminator transformer L201 so that the center tuning meter pointer indicates its center at no signal applied. Set the FM SG to 98MHz and increase its output level to  $1\text{K}\mu\text{V}$  and tune the receiver to the same frequency so that the center tuning meter pointer indicates its center. Adjust the primary core (lower) of L201 for minimum distortion.
9. Set the FM SG to 98MHz with  $100\text{K}\mu\text{V}$ , and adjust R374 so that signal strength meter may read 90% of the full scale.

## 5. STEREO SEPARATION ALIGNMENT PROCEDURES

1. Set the FM SG to provide  $1\text{K}\mu\text{V}$  at 98MHz. Tune the receiver to the same frequency so that the center tuning meter pointer indicates its center.
2. Turn the FM SG modulation off (with the pilot signal turned off), connect a frequency counter to the test point J310, and adjust R311 so that the frequency counter may precisely read 19kHz.
3. Modulate the FM SG with stereo composite signal consisting of only subchannel signal (of course a pilot signal must be included).
4. Adjust the trimming resistor R301 for maximum and same separation in both channels.

## 6. MUTING CIRCUIT ALIGNMENT PROCEDURES

1. Connect a VTVM to across the resistor R363 and adjust the resistor R363 until the meter reads 0.75V DC at no signal.

2. Set the FM SG to provide  $1\text{K}\mu\text{V}$  at 98MHz and tune the receiver to the same frequency correctly.
3. Turn on MUTING pushswitch. Shift the FM signal generator frequency to plus and minus and note both plus and minus shifted frequencies at which undesirable audio side responses are muted out. Adjust the R363 so that the same shifted frequencies mute the undesirable side response.
4. Adjust R362 for proper frequency shift at which the muting circuit operates.

## **7. DOLBY FM TAPE OUTPUT SETTING**

1. Set the modulation of FM SG to 400Hz, 50% ( $\pm 37.5\text{kHz}$  Dev.).
2. Set the FM SG to provide  $1\text{K}\mu\text{V}$  at 98MHz. Tune the receiver to the same frequency so that the center tuning meter pointer indicates its center.
3. Turn on DOLBY FM pushswitch. Set the semifixed resistors RC01 and RC02 so that each output of the TAPE OUT jacks R and L become 580mV at VTVM.

## **8. AUDIO ADJUSTMENT**

### **8.1 Main Amplifier DC Offset Alignment**

Connect a DC voltmeter with 0.5 or 1V range between the SPEAKER terminals and adjust the trimming resistor R713 for "zero" DC output on the meter.

Repeat the same procedure for the other channel.

Note: During this alignment no load should be connected to the SPEAKER terminals.

### **8.2 Idle-Current Adjustment**

Connect a VTVM between pins J713 and J717. Next, adjust the trimming resistor R766 for the VTVM reads 8mV DC.

Repeat the same procedure for the other channel.

Note: During this alignment no load should be connected to the speaker terminals.

### **8.3 Main Amplifier DC Offset Re-Alignment**

Check the DC offset voltage aligned in the section 8.2 and if any DC output is observed on the DC voltmeter, adjust R713 again for "zero" output.

## **9. AUTOMATIC VOLTAGE REGULATOR ADJUSTMENT**

Connect a VTVM to J804 (+) and J805 (—) and adjust R806 until the VTVM reads 35V under no signal condition.

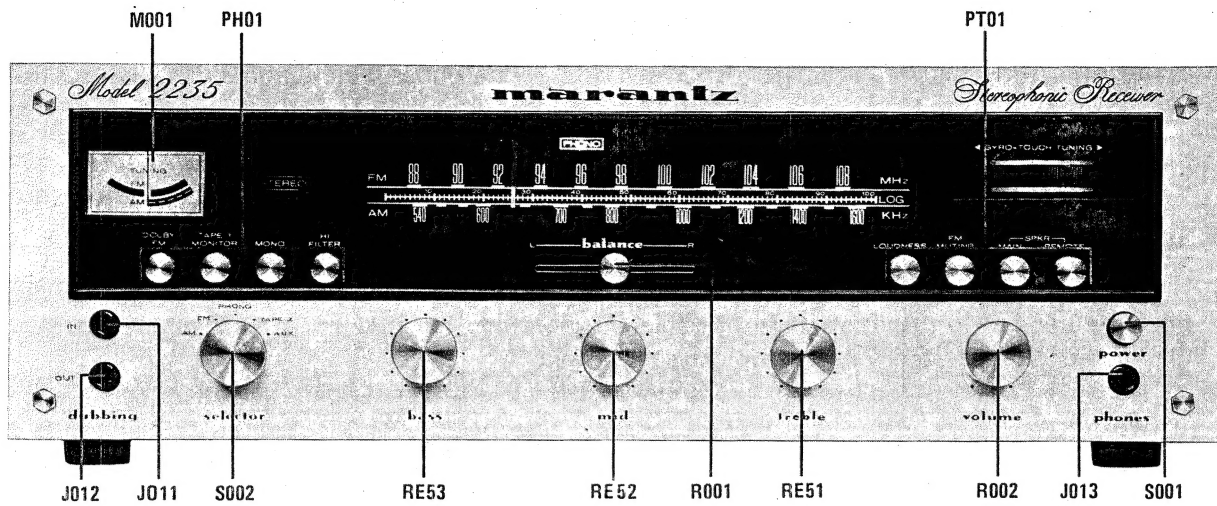


Figure 2. Front Panel Adjustment and Component Locations

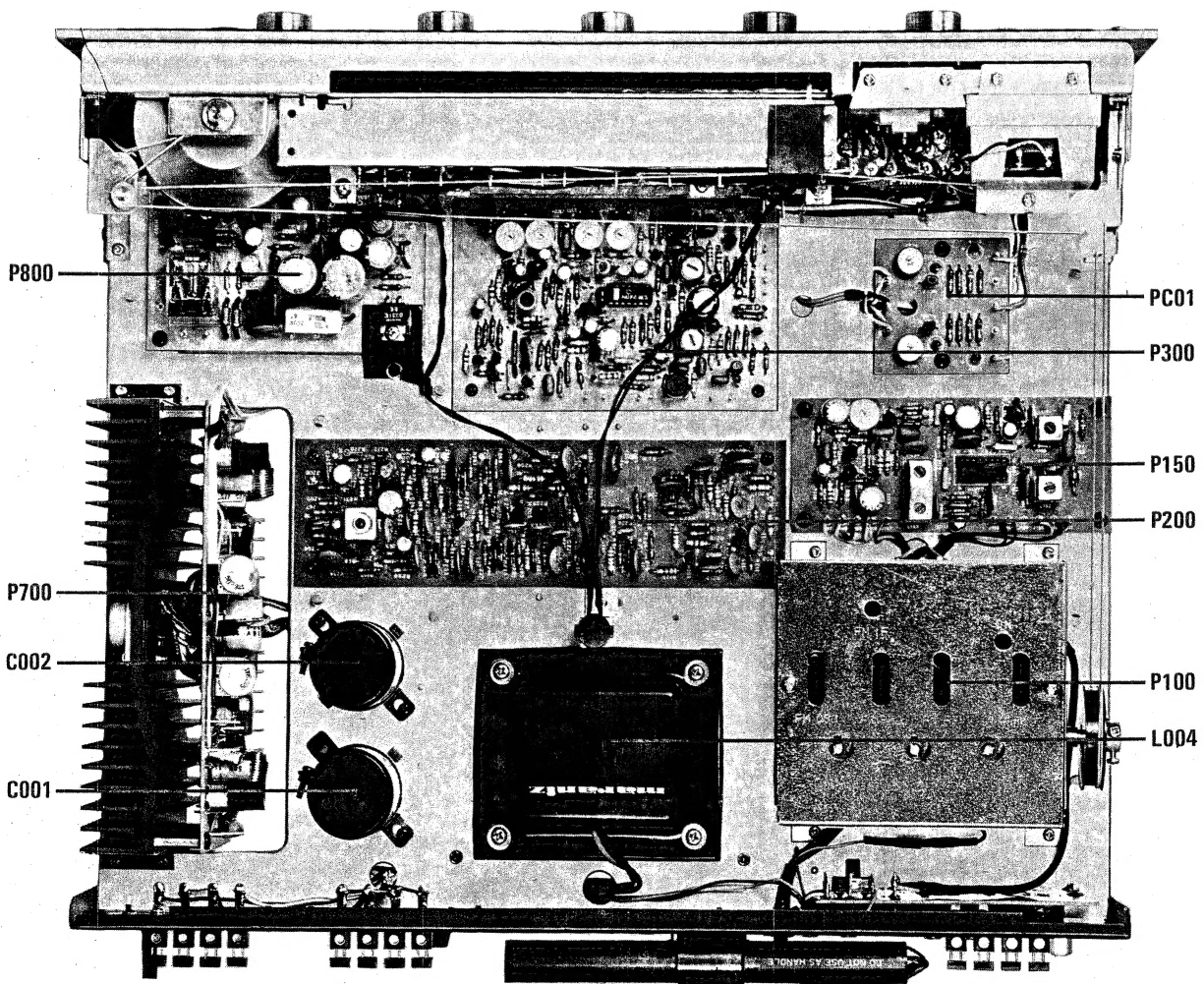


Figure 3. Main Chassis Component Locations (Top View)



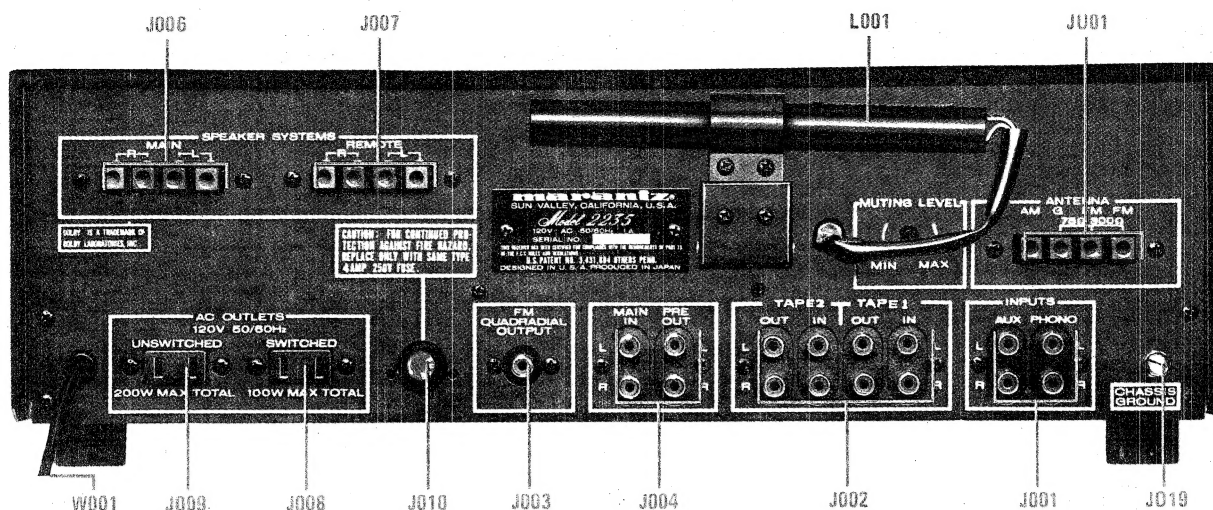


Figure 4. Rear Panel Jacks and Component Locations

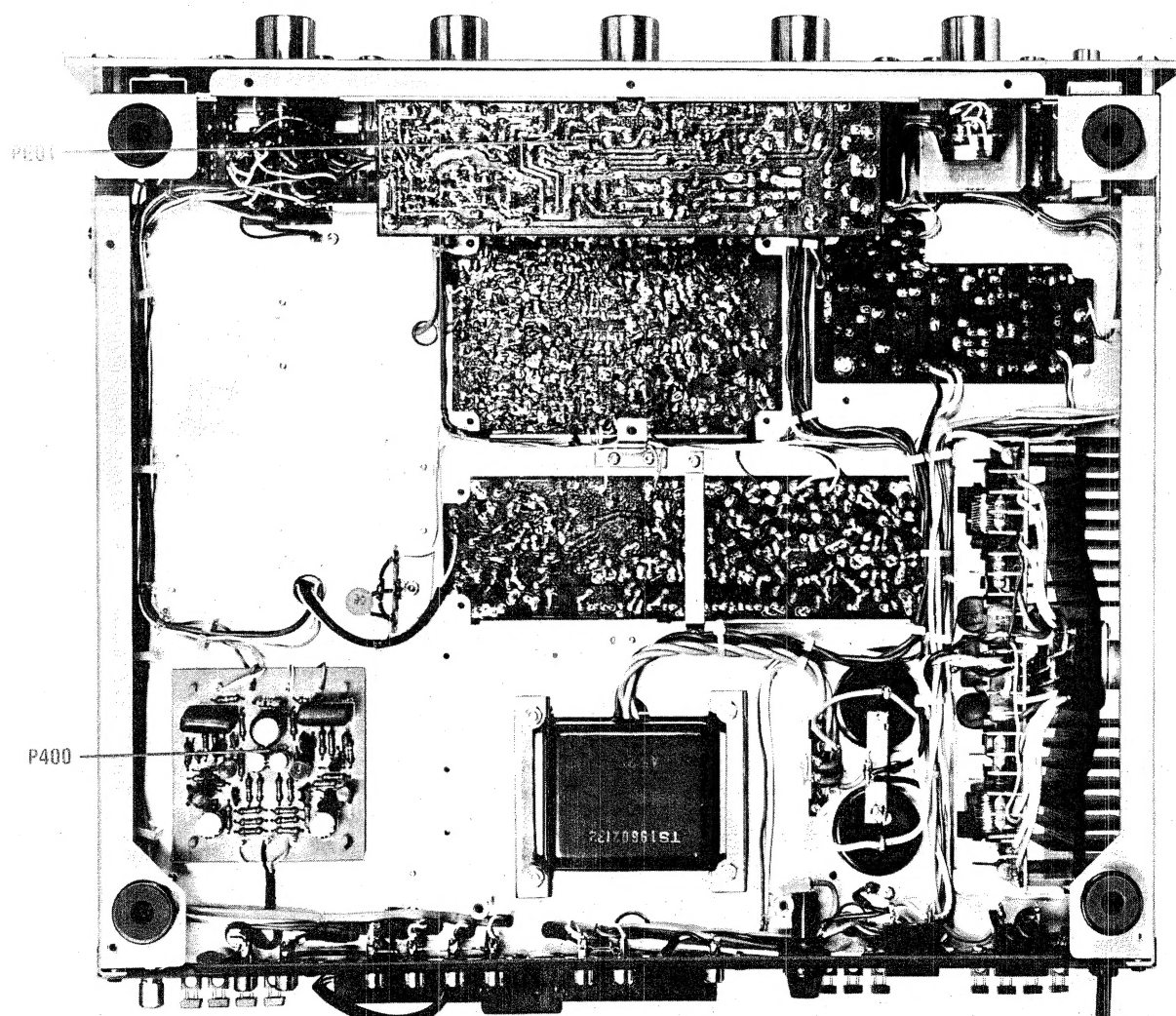


Figure 5. Main Chassis Component Locations (Bottom View)



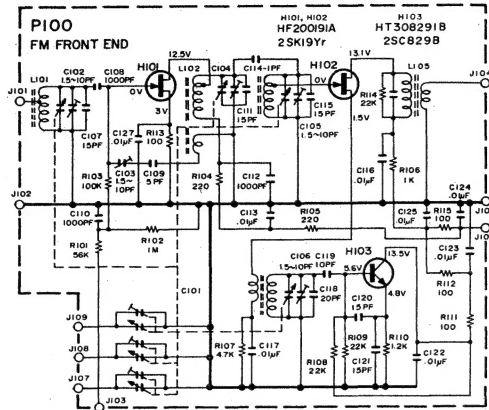


Figure 6. P100 Circuit Diagram

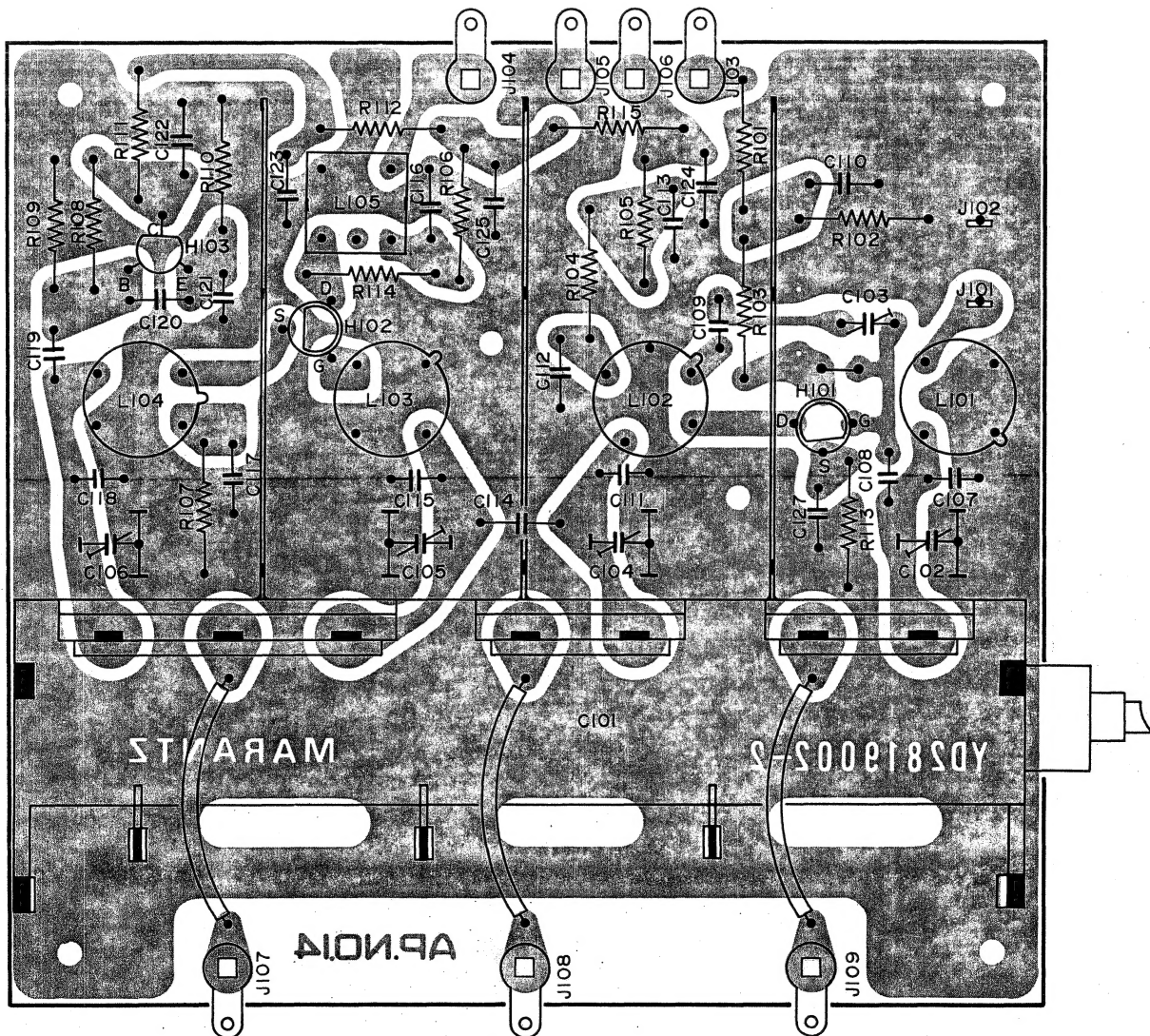
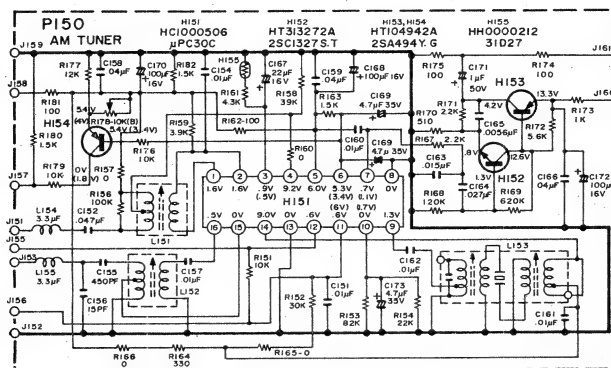
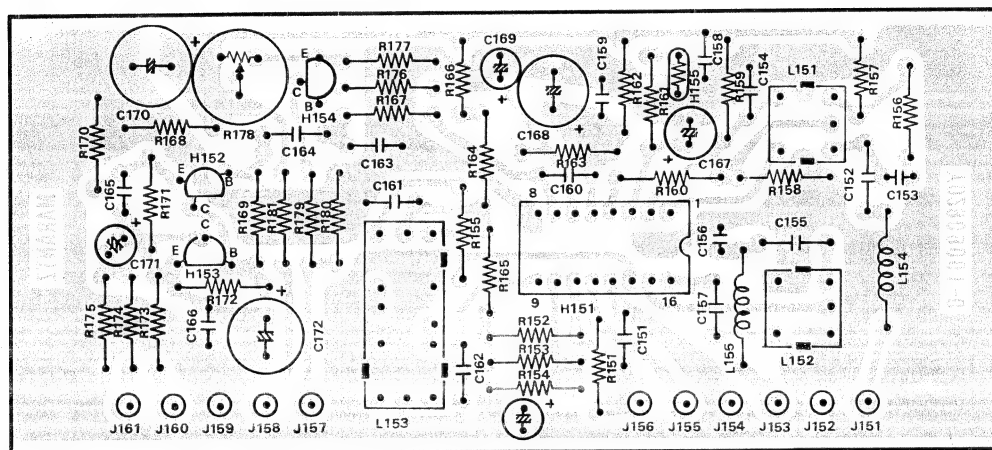


Figure 7. FM Front End Board – P100 Component Assembly Diagram



**Figure 8. P150 Circuit Diagram**



**Figure 9. AM Tuner Board – P150 Component Assembly Diagram**

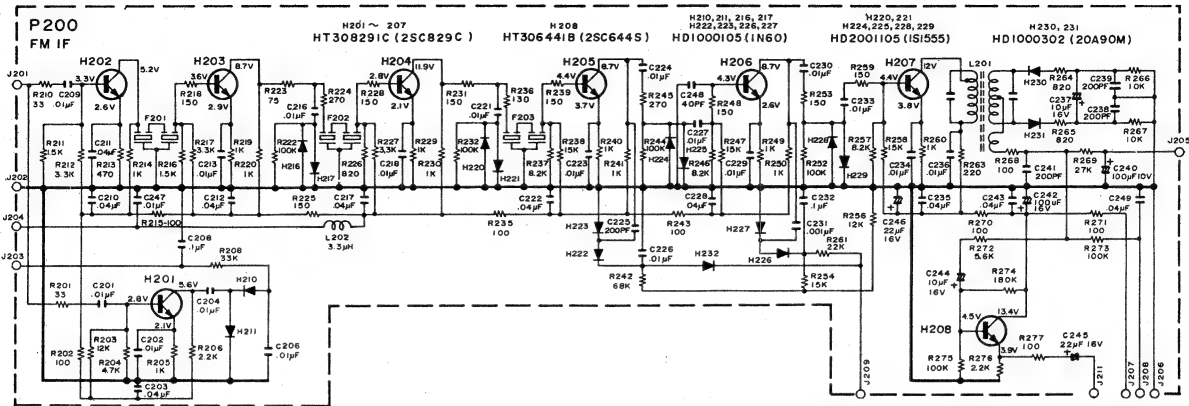


Figure 10. P200 Circuit Diagram

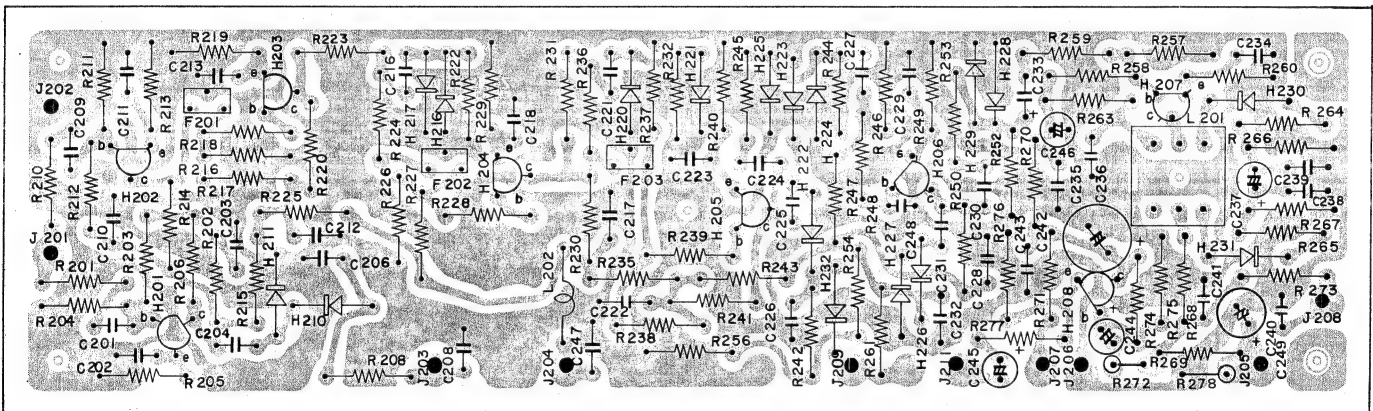
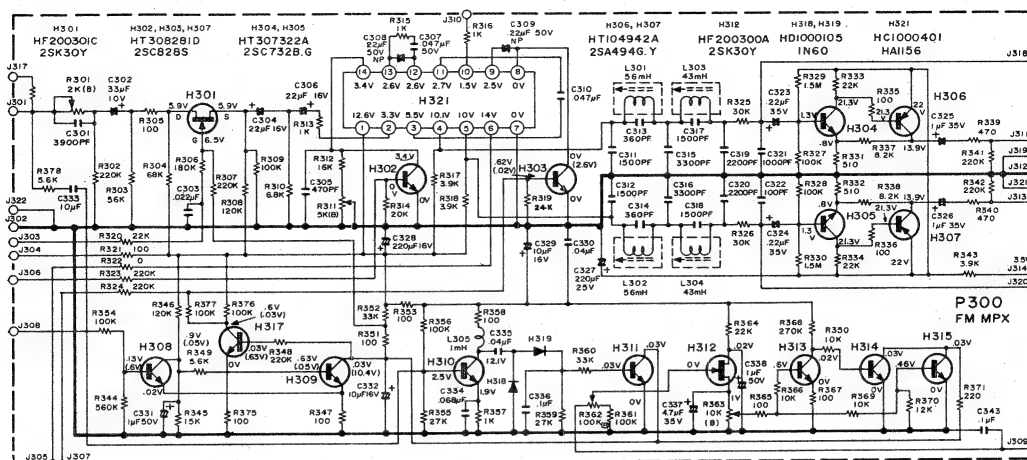
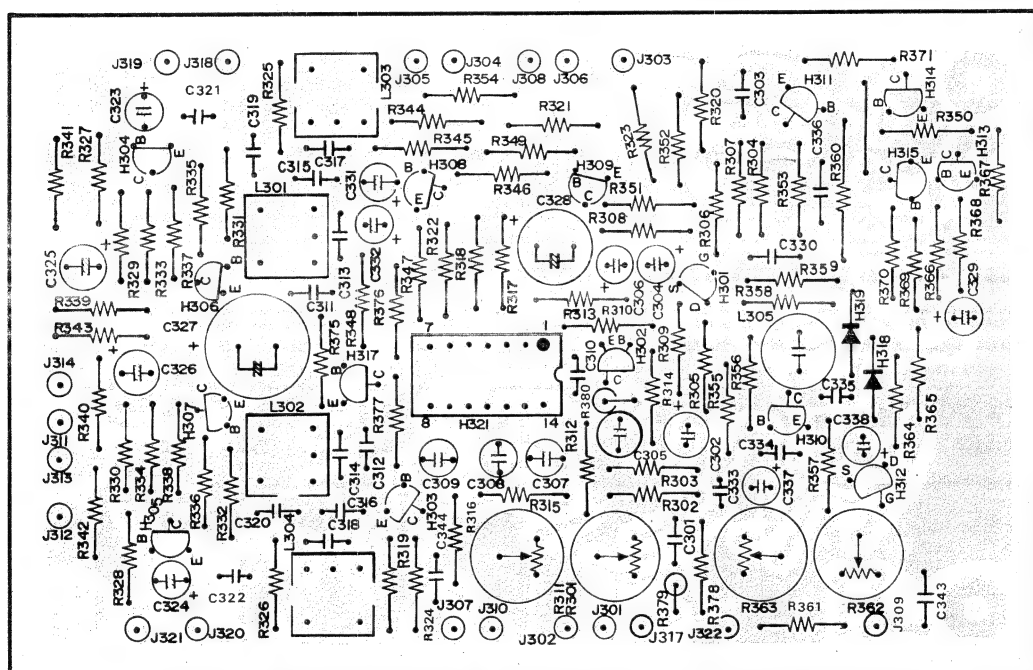


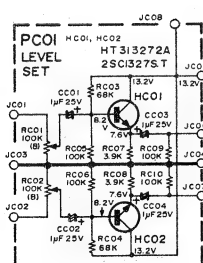
Figure 11. FM IF and Detector Board – P200 Component Assembly Diagram



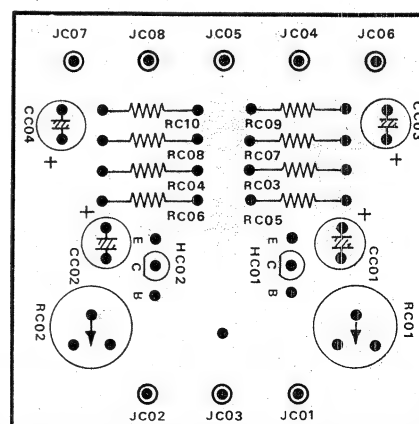
**Figure 12. P300 Circuit Diagram**



**Figure 13. FM Multiplex and Muting Board – P300 Component Assembly Diagram**



**Figure 14. PC01 Circuit Diagram**



**Figure 15. Dolby Level Board – PC01 Component Assembly Diagram**



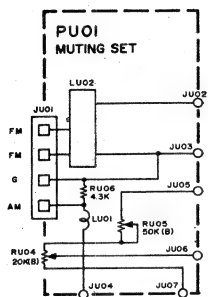


Figure 16. PU01 Circuit Diagram

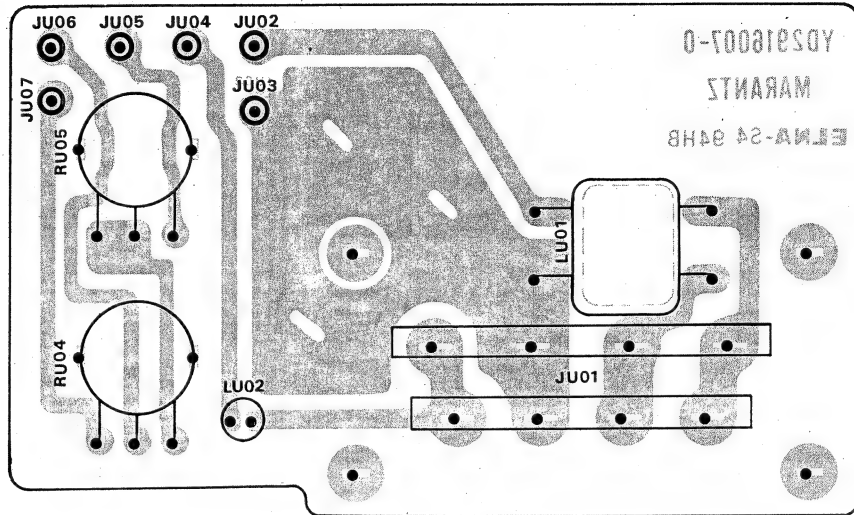


Figure 17. Antenna Muting Board – PU01 Component Assembly Diagram

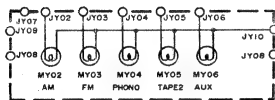


Figure 18. PY01 Circuit Diagram

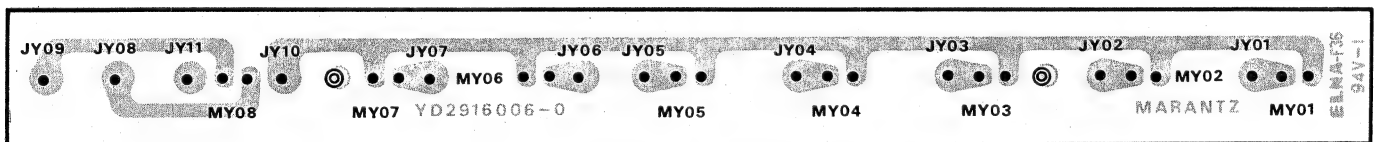


Figure 19. Function Lamp Board – PY01 Component Assembly Diagram

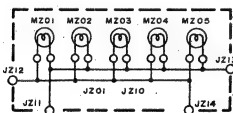


Figure 20. PZ01 Circuit Diagram

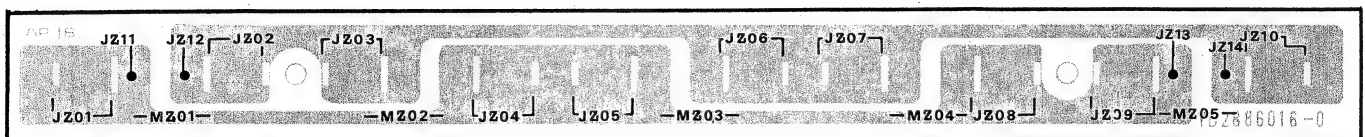


Figure 21. Dial Lamp Board – PZ01 Component Assembly Diagram



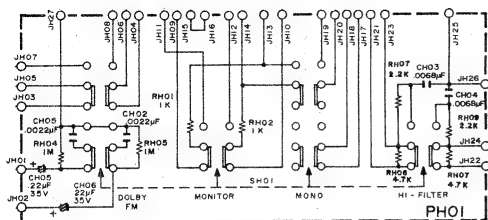


Figure 22. PH01 Circuit Diagram

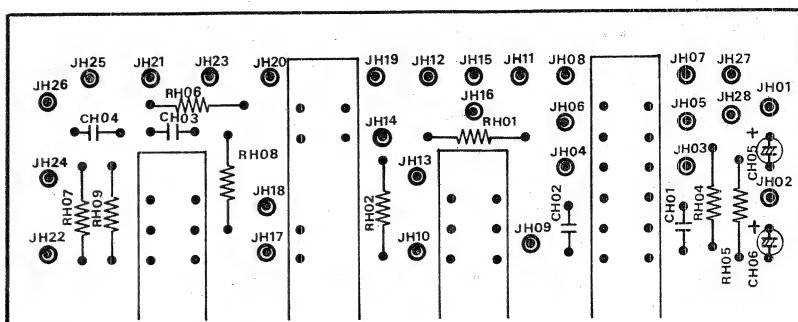


Figure 23. Dolby FM, Monitor, Mono and Hi Filter Switch Board – PH01 Component Assembly Diagram

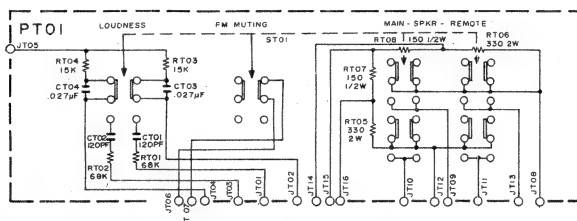


Figure 24. PT01 Circuit Diagram

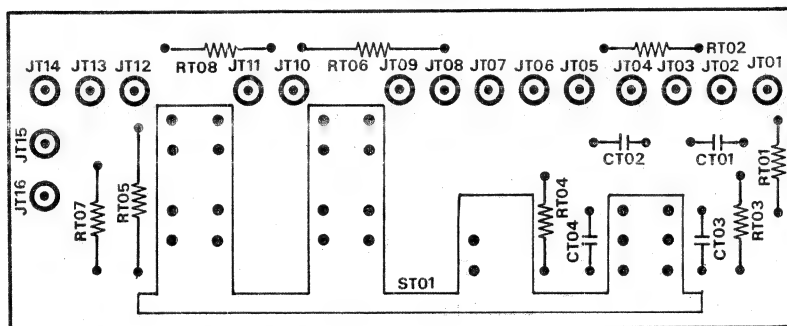


Figure 25. Loudness, FM Muting, Main and Remote Speaker Switch Board – PT01 Component Assembly Diagram

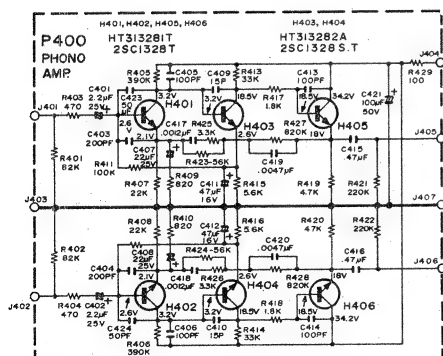


Figure 26. P400 Circuit Diagram

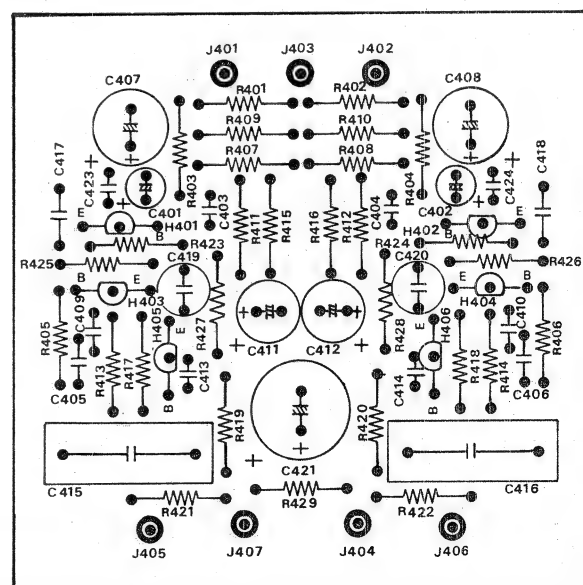


Figure 27. Phono Amplifier Board – P400 Component Assembly Diagram

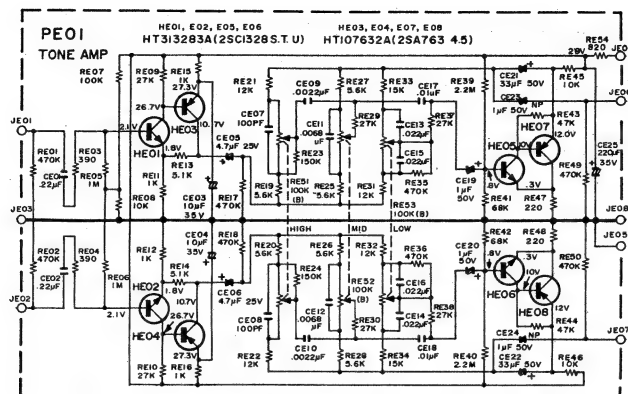


Figure 28. PE01 Circuit Diagram

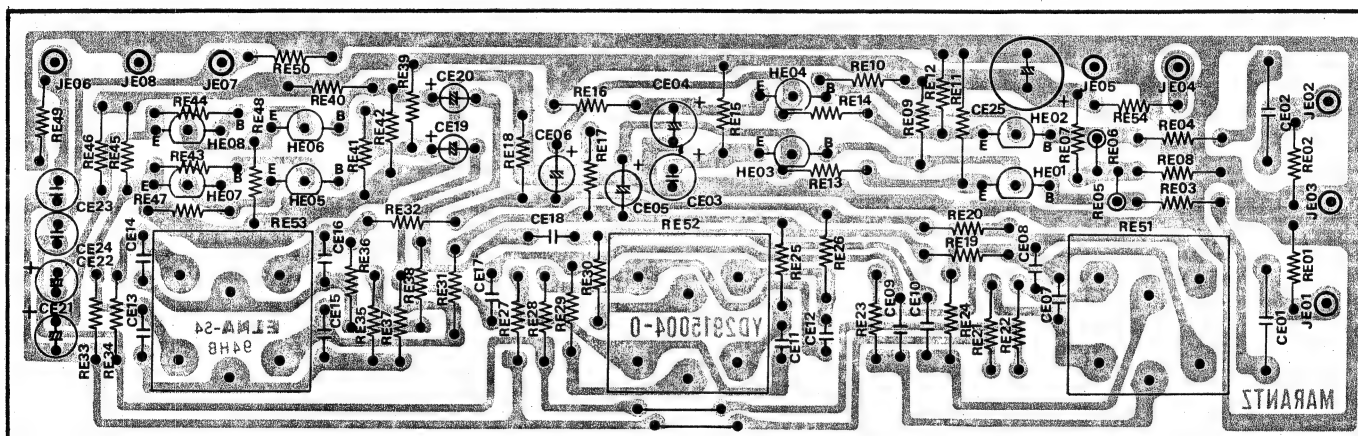


Figure 29. Pre and Tone Amplifier Board – PE01 Component Assembly Diagram

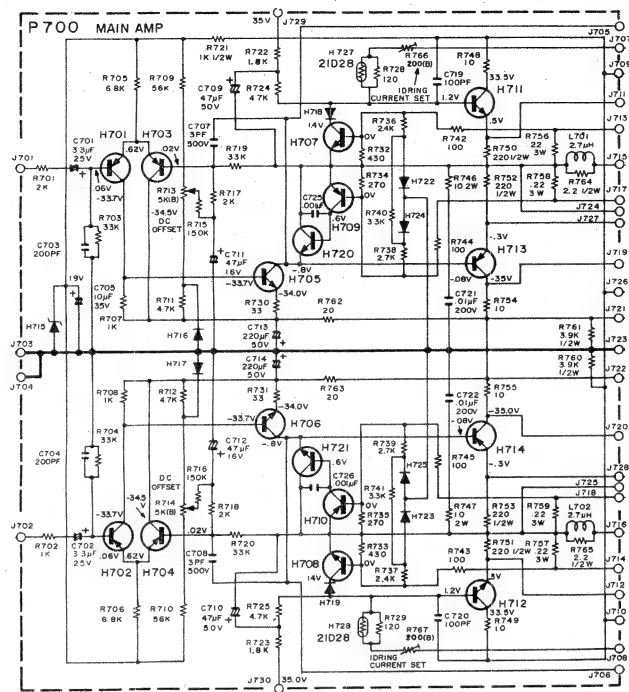


Figure 30. P700 Circuit Diagram

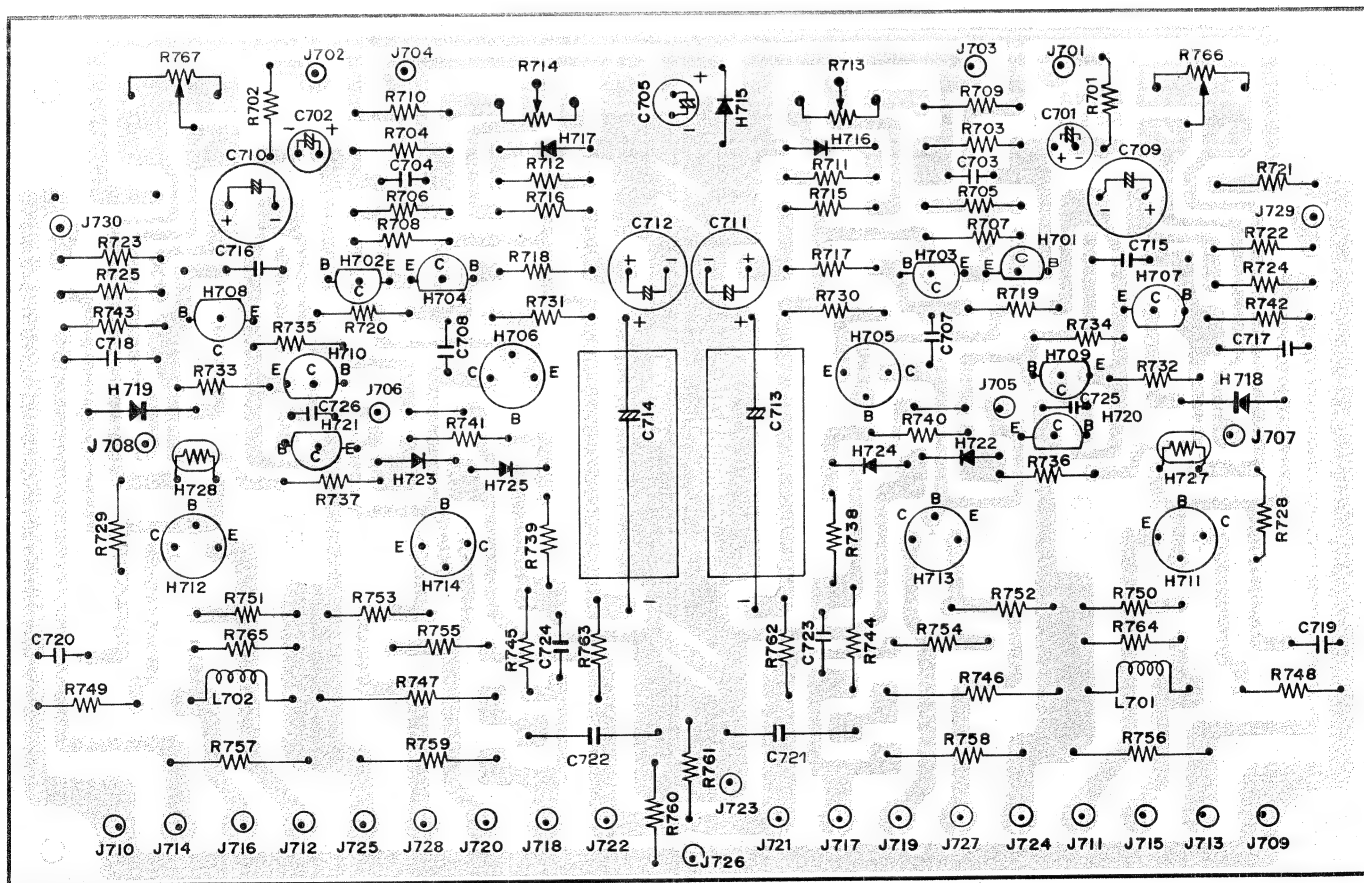


Figure 31. Main Amplifier Board - P700 Component Assembly Diagram

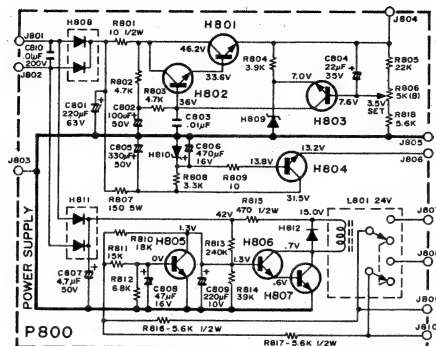


Figure 32. P800 Circuit Diagram

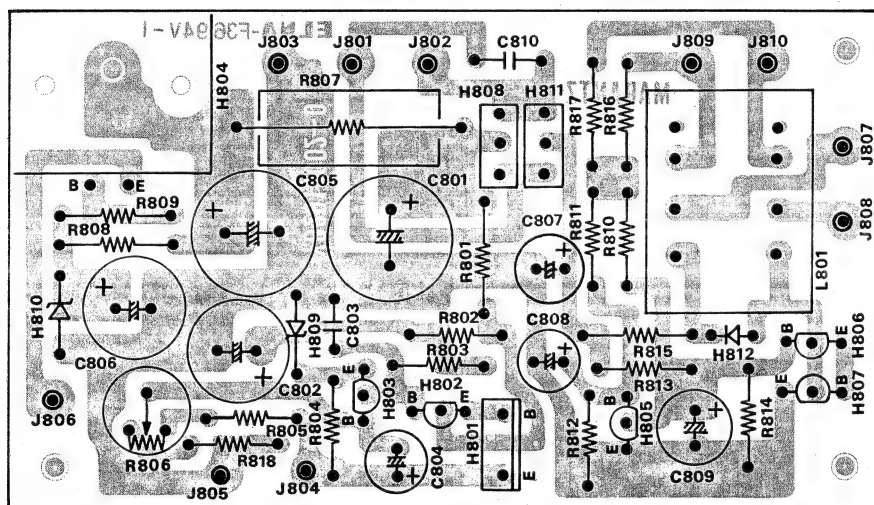
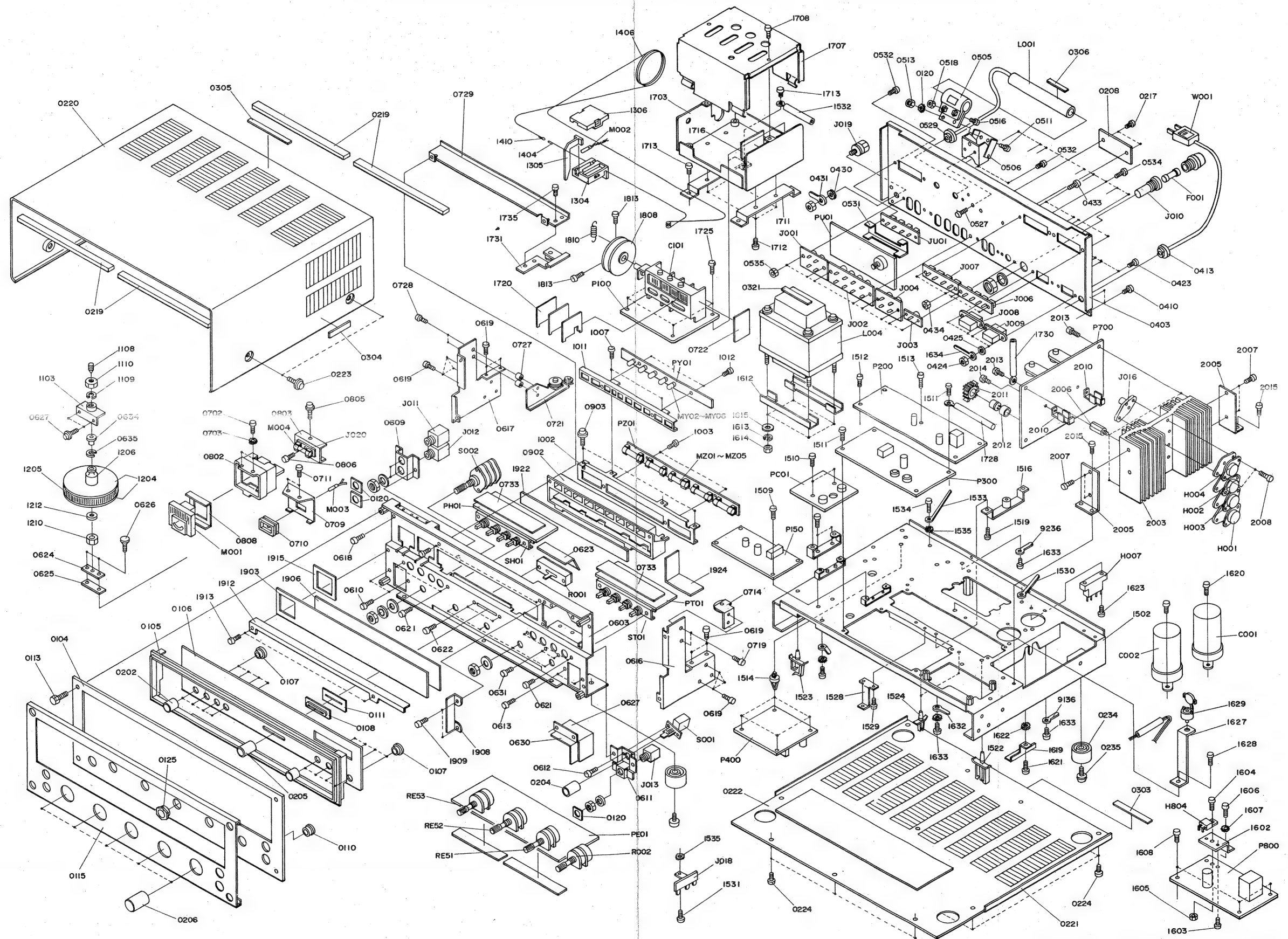


Figure 33. Power Supply Board – P800 Component Assembly Diagram













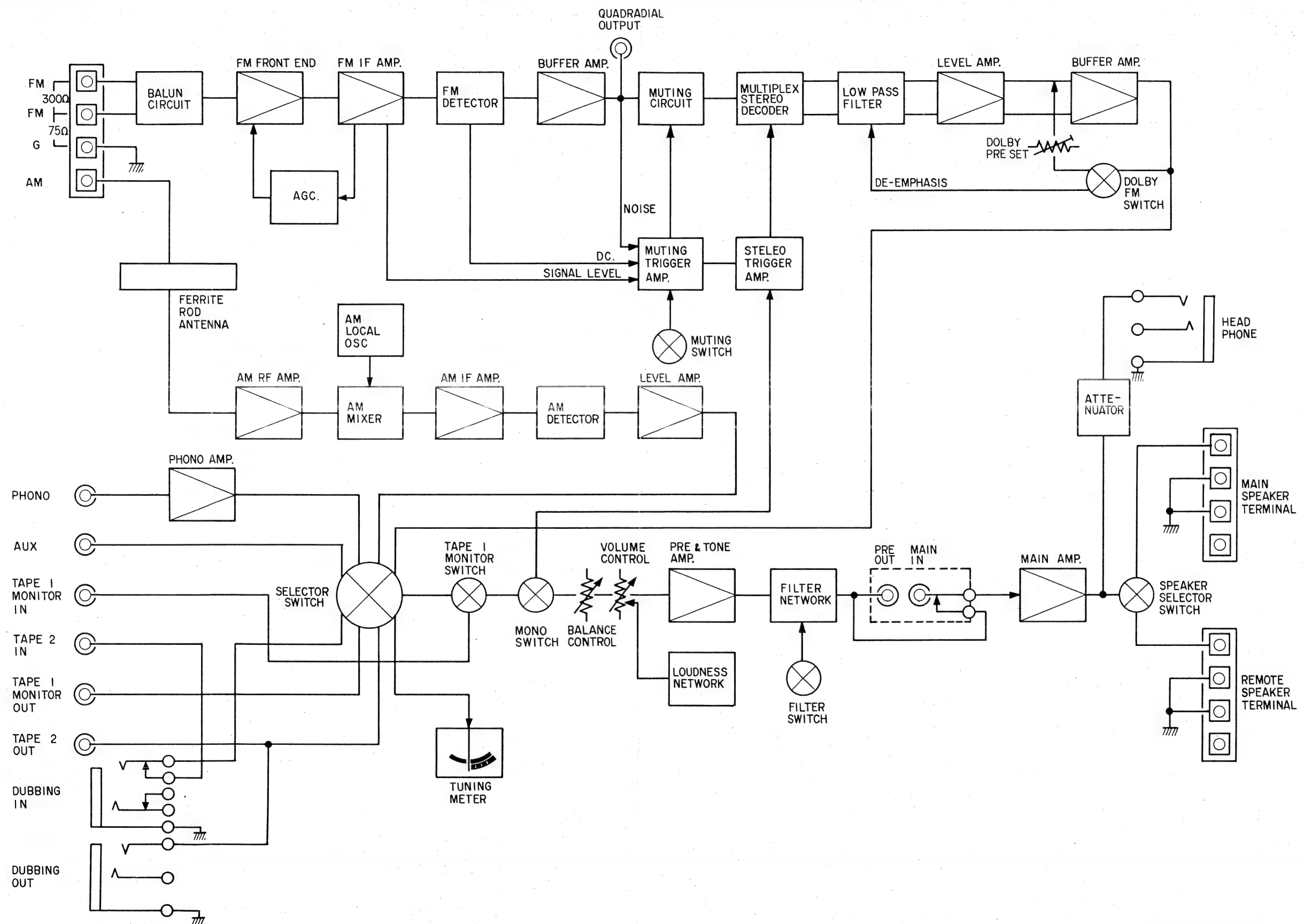


Figure 37. Block Diagram

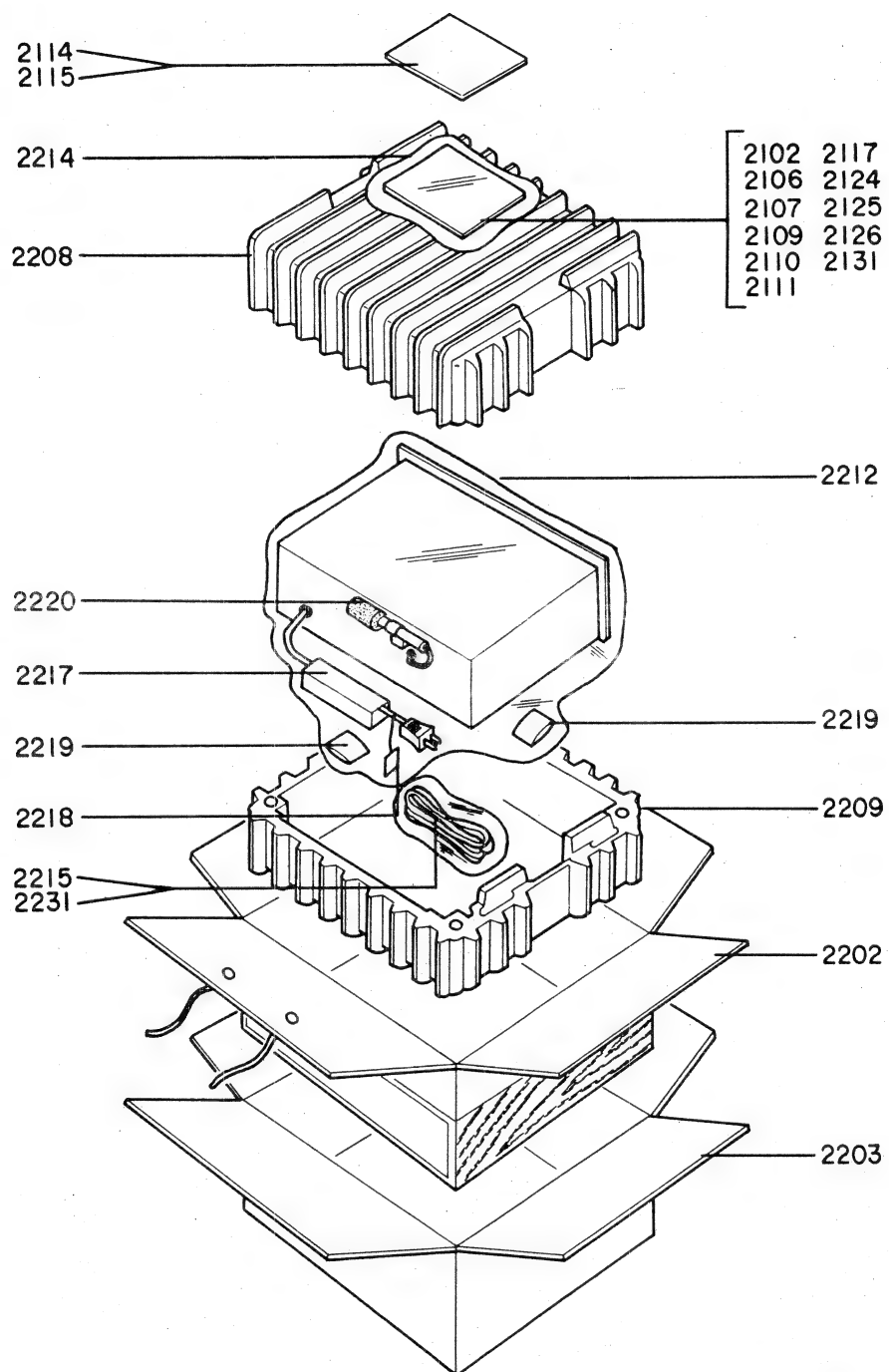


Figure 38. Packing

## 10. PARTS LIST

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
A	1	1	1	292706340	Front Panel Assembly
0104	1	1	1	292706301	Escutcheon
0105	1	1	1	285340101	Frame
0106	1	1	1	291515801	Window
0107	9	9	9	288625901	Bush
0108	1	1	1	285425901	Bush
0111	1	1	1	291510701	Sheet
0115	1	1	1	291605301	Cover
0120	3	3	3	289610701	Sheet
B	1	1	1	285327340	Fly Wheel Assembly
1204	2	2	2	257706302	Escutcheon
1205	1	1	1	257727301	Fly Wheel
1206	1	1	1	285311201	Shaft
1210	1	1	1	53110603E	Hexagon Nut
1212	1	1	1	54020601E	Flat Washer P
M002	1	1	1	IN1008030	Lamp
C	1	1	1	291510340	Pointer Assembly
1304	1	1	1	291510301	Pointer
1305	1	1	1	281810302	Pointer
1306	1	1	1	291510302	Pointer
D	1	1	1	120200640	Hook Assembly
1404	1	1	1	120225801	Hook
1406	1	1	1	72080802A	String
E	1	1	1	281915943	Drum Assembly
1808	1	1	1	281915901	Drum
1810	1	1	1	71101689L	Spring
1813	2	2	2	51064019A	Set Screw
F	1	1	1	281825740	Top Lid Assembly
0219	1	1	1	257711807	Spacer
0220	1	1	1	281825701	Lid
G	1	1	1	281825741	Bottom Lid Assembly
0221	1	1	1	281825702	Lid
0222	1	1	1	291512001	Insulator
H		1		292716040	Rear Panel Assembly
0405		1		292716022	Bracket
0414		1		284906702	Cap
0416		1		282125901	Bush
0417		2		55060305S	T.R. Rivet
0125	1	1	1	292705501	Collar
0202	8	8	8	288615403	Knob, Pushswitch
0204	1	1	1	290415404	Knob, Power
0205	1	1	1	285015401	Knob, Slide Volume
0206	5	5	5	281815403	Knob, Single
0208	1			292726501	Indicator, Name Plate
0209		1		292726502	Indicator, Name Plate
0210		1		292726503	Indicator, Name Plate
0217	2	2	2	51060306S	B.H.M. Screw, B3x6

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
0219	4	4	4	257711807	Spacer
0220	1	1	1	281825701	Lid
0221	1	1	1	281825702	Lid
0222	1	1	1	291512001	Insulator
0223	4	4	4	51480406S	B.H.M. Screw F, B4x6
0224	10	10	10	51100406S	B.H.M. Screw, B4x6
0234	4	4	4	293205701	Leg
0235	4	4	4	51440410S	B.H.M. Screws .S, B4x10
0303	1	1	1	257886101	Label, UL Caution
0304	1	1	1	257886102	Label, Do not remove cover.
0305	1	1	1	257886103	Label, See marking on bottom.
0306	1	1	1	250626506	Indicator, Do not use as handle.
0311		1		951091101	Label, LL No.
0312		1		282186102	Label, Fuse Caution
0313	1			951091102	Label, UL Factory Code
0316	1			951110102	Label, UL
0321	1	1	1	288686101	Label, On Transformer
0323	1	1	1	951022101	Label, Fuse Caution
0403	1	1		292716009	Bracket
0410	6	6	6	51060306S	B.H.M. Screw, B3x6
0413	1	1		145525903	Bush, Power Code
0418		2		54050300R	T.L. Washer OR
0419		2		51060316A	P.H.M. Screw, P3x16
0420		2		53110303A	Hexagon Nut
0423	4	4		51060308S	B.H.M. Screw, B3x8
0424	4	4		53110303A	Hexagon Nut
0425	4	4	4	54050300R	T.L. Washer OR
0430	1	1	1	54050400R	T.L. Washer OR
0431	1	1	1	62041760W	Lug
0433	4	4	4	51060308S	B.H.M. Screw, B3x8
0434	4	4	4	53110303A	Hexagon Nut
0505	1	1	1	281927103	Holder, Antenne
0506	1	1	1	257816052	Bracket K
0511	2	2	2	51060310S	B.H.M. Screw, B3x10
0512	2	2	2	54050300R	T.L. Washer OR
0513	2	2	2	53110303E	Hexagon Nut
0516	2	2	2	51060310S	B.H.M. Screw, B3x10
0518	2	2	2	53110303E	Hexagon Nut
0527	3	3	3	51100306S	B.H.M. Screw, B3x6
0529	1	1	1	145525903	Bush
0531	1	1	1	291616005	Bracket
0532	2	2	2	51060306S	B.H.M. Screw, B3x6
0534	8	8	8	51060308S	B.H.M. Screw, B3x8
0535	8	8	8	53110303A	Hexagon Nut
0603	1	1	1	291516050	Bracket K
0609	1	1	1	291616002	Bracket
0610	2	2	2	51100306A	B.H.M. Screw, B3x6
0611	1	1	1	291616003	Bracket
0612	2	2	2	51060306A	P.H.M. Screw, P3x6
0613	2	2	2	51100306A	P.H.M. Screw, P3x6
0616	1	1	1	281816003	Bracket
0617	1	1	1	281816004	Bracket
0618	4	4	4	51100406A	B.H.M. Screw, B4x6
0619	10	10	10	51570306B	P.H. Tapped Screw, P3x6ST
0621	4	4	4	51100306A	B.H.M. Screw, B3x6
0622	2	2	2	51100306A	B.H.M. Screw, B3x6
0623	1	1	1	291512002	Insulator
0624	1	1	1	257710602	Bearing
0625	1	1	1	141511801	Spacer



U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
0626	2	2	2	51040306A	F.H.M. Screw, F3x6
0627	2	2	2	51470306A	B.H.M. Screw FS
0629	1	1	1	291510903	Shield
0630	2	2	2	291512003	Insulator
0631	2	2	2	51100305A	B.H.M. Screw, B3x5
0634	1	1	1	285011202	Shaft
0635	1	1	1	54040402N	Spring Washer
0702	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
0703	2	2	2	54050300R	T.L. Washer OR
0706	2	2	2	51042608A	F.H.M. Screw, F2.6x8
0709	1	1	1	291516004	Bracket
0710	1	1	1	291225901	Bush
0711	2	2	2	51570305B	P.H. Tapped Screw, P3x5ST
0714	1	1	1	291626251	Pulley K
0719	2	2	2	51100306A	B.H.M. Screw, B3x6
0721	1	1	1	292726251	Pulley K
0728	2	2	2	51100306A	B.H.M. Screw, B3x6
0729	1	1	1	287105102	Guide
0733	1	1	1	288612002	Insulator
0802	1	1	1	285427401	Reflector
0803	1	1	1	285427101	Holder
0805	1	1	1	51480306A	B.H.M. Screw F
0806	1	1	1	51570305B	P.H. Tapped Screw, P3x5ST
0808	1	1	1	288610701	Sheet
0902	1	1	1	287127401	Reflector
0903	2	2	2	51480306A	B.H.M. Screw F
1002	1	1	1	287127101	Holder
1003	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
1007	2	2	2	51100306A	B.H.M. Screw, B3x6
1011	1	1	1	288627101	Holder
1012	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
1103	1	1	1	285310650	Bearing K
1108	1	1	1	51640410D	Set Screw C P
1109	1	1	1	54040402N	Spring Washer
1110	1	1	1	53110403E	Hexagon Nut
1410	1	1	1	56382540G	Eyelet, Dial String
1502	1	1	1	292710550	Chassis K
1509	4	4	4	51100306S	B.H.M. Screw, B3x6
1510	2	2	2	51100306S	B.H.M. Screw, B3x6
1511	4	4	4	51570306S	P.H. Tapped Screw, P3x6ST
1512	4	4	4	51570306S	P.H. Tapped Screw, P3x6ST
1513	1	1	1	51100306S	B.H.M. Screw, B3x6
1514	4	4	4	389610101	Support
1516	1	1	1	292710450	Retainer K
1519	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
1522	2	2	2	288600503	Clamper
1523	5	5	5	288600502	Clamper
1524	4	4	4	288600505	Clamper
1528	1	1	1	292716003	Bracket
1529	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
1530	1	1	1	282100501	Clamper
1531	1	1	1	51570306B	P.H. Tapped Screw, P3x6ST
1532	1	1	1	138200503	Clamper
1533	1	1	1	287100501	Clamper
1534	1	1	1	51570306B	P.H. Tapped Screw, P3x6ST
1535	2	2	2	54050300R	T.L. Washer OR
1602	1	1	1	291626702	Heat Sink
1603	2	2	2	51102606S	B.H.M. Screw, B2.6x6

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
1604	1	1	1	51100310E	B.H.M. Screw, B3x10
1605	1	1	1	53110301E	Hexagon Nut
1606	1	1	1	51570306S	P.H. Tapped Screw, P3x6ST
1607	1	1	1	54050300R	T.L. Washer OR
1608	3	3	3	51100306S	B.H.M. Screw, B3x6
1612	2	2	2	292700501	Clamper
1613	4	4	4	54040402A	Spring Washer
1614	4	4	4	53110401A	Hexagon Nut
1615	4	4	4	54020401A	Flat Washer P
1619	1	1	1	292716004	Bracket
1620	4	4	4	51570306S	P.H. Tapped Screw, P3x6ST
1621	1	1	1	51570306B	P.H. Tapped Screw, P3x6ST
1622	1	1	1	54050300R	T.L. Washer OR
1623	2	2	2	51570310B	P.H. Tapped Screw, P3x10ST
1627	1	1	1	292716005	Bracket
1628	1	1	1	51570306B	P.H. Tapped Screw, P3x6ST
1629	1	1	1	290825901	Bush
1632	1	1	1	62030039W	Lug
1633	4	4	4	51570306B	P.H. Tapped Screw, P3x6ST
1634	1	1	1	138200503	Clamper
1703	1	1	1	273010950	Shield K
1707	1	1	1	273010902	Shield
1708	2	2	2	51100306B	B.H.M. Screw, B3x6
1711	2	2	2	292716006	Bracket
1712	4	4	4	51100306B	B.H.M. Screw, B3x6
1713	4	4	4	51570306B	P.H. Tapped Screw, P3x6ST
1716	1	1	1	291612003	Insulator
1720	3	3	3	273010903	Shield
1722	1	1	1	341105605	Buffer
1725	5	5	5	51100306S	B.H.M. Screw, B3x6
1728	1	1	1	138200503	Clamper
1730	1	1	1	138200503	Clamper
1731	1	1	1	291726250	Pulley K
1735	2	2	2	51100306A	B.H.M. Screw, B3x6
1903	1	1	1	292730201	Dial
1906	1	1	1	285310701	Sheet
1908	1	1	1	285326901	Protector
1909	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
1912	1	1	1	291526901	Protector
1913	2	2	2	51570305B	P.H. Tapped Screw, P3x5ST
1915	1	1	1	287105302	Cover
1922	1	1	1	288612201	Sticker
1924	1	1	1	281912005	Insulator
1951	1	1	1	951061105	Label, 5A
2003	1	1	1	289026701	Heat Sink
2005	2	2	2	289016003	Bracket
2006	4	4	4	281810104	Support
2007	4	4	4	51380305T	R.H. Tapped Screw, R3x5ST
2008	8	8	8	51100316E	B.H.M. Screw, B3x16
2010	2	2	2	289026703	Heat Sink
2011	4	4	4	289226703	Heat Sink
2012	6	6	6	281811806	Spacer
2013	4	4	4	51100306S	B.H.M. Screw, B3x6
2014	2	2	2	51100204A	B.H.M. Screw, B3x6
2015	4	4	4	51570306B	P.H. Tapped Screw, P3x6ST
2019	1	1	1	288816005	Bracket
2020	2	2	2	51570306B	P.H. Tapped Screw, P3x6ST
2021	2	2	2	51100306S	B.H.M. Screw, B3x6
2022	1	1	1	292710901	Shield
2023	1	1	1	285612001	Insulator

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
2024			2	51570305B	P.H. Tapped Screw, P3x5ST
2026			1	292716007	Bracket
2027			2	51570306B	P.H. Tapped Screw, P3x6ST
2028			4	51570312B	P.H. Tapped Screw, P3x6ST
2029			5	54060300R	T.L. Washer IR
2102	1			292785101	Instructions, Set
2107		1		288685110	Instructions, Leaflet
2108		1	1	292785131	Instructions, Set
2109	1			292785601	Schematic Diagram
2110			1	292785602	Schematic Diagram
2111		1		292785603	Schematic Diagram
2114	1		1	281885108	Instructions, Accessories
2115		1		287185104	Instructions, Accessories
2117	1	1	1	281885104	Instructions, Packing
2124	1		1	257785401	Guarantee Card
2125	1		1	257785102	Instructions
2126	1			257781301	Envelope
2131			1	281881301	Envelope
2202	1	1	1	292780101	Packing Case, Inner
2203	1	1	1	292780111	Packing Case, Outer
2208	1	1	1	281880304	Cushion, Upper
2209	1	1	1	281880305	Cushion, Lower
2212	1	1	1	901483838	Polyethylene Bag, Set
2214	1	1	1	901302501	Polyethylene Bag, Printed Matter
2215	1	1	1	901302501	Polyethylene Bag, Accessories
2217	1	1	1	102980401	Sleeve
2218			1	956000004	Hang Tag
2219	2	2	2	273182101	Silicagel
2220	1	1	1	281905601	Buffer
2222	4			952281501	Serial No. Card
2223		4		952301512	Serial No. Card
2224			4	952301511	Serial No. Card
2231	1	1	1	ZA0200007	Ext. Antenna
9136	1	1	1	62030039W	Lug
9236	1	1	1	62030039W	Lug
<b>FM FRONT END CIRCUIT BOARD-P100</b>					
P100	1	1	1	YD2819002	P.W. Board, FM Front End (Print Only)
	1	1	1	ZZ2927102	P.W. Board Assembly
<b>P100-RESISTORS</b>					
All resistors are $\pm 5\%$ and $\frac{1}{4}W$ .					
R101	1	1	1	RT0556314	56K $\Omega$
R102	1	1	1	RT0510514	1M $\Omega$
R103	1	1	1	RT0510414	100K $\Omega$
R104	1	1	1	RT0522114	220 $\Omega$
R105	1	1	1	RT0522114	220 $\Omega$
R106	1	1	1	RT0510214	1K $\Omega$
R107	1	1	1	RT0547214	4.7K $\Omega$
R108	1	1	1	RT0522314	22K $\Omega$
R109	1	1	1	RT0522314	22K $\Omega$
R110	1	1	1	RT0512214	1.2K $\Omega$
R111	1	1	1	RT0510114	100 $\Omega$
R112	1	1	1	RT0510114	100 $\Omega$
R113	1	1	1	RT0510114	100 $\Omega$
R114	1	1	1	RT0522314	22K $\Omega$
R115	1	1	1	RT0510114	100 $\Omega$
<b>P100-CAPACITORS</b>					
C101	1	1	1	CA4330001	Variable

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
C102	1	1	1	CT1100001	Trimming, 1.5~10PF
C103	1	1	1	CT1100002	Trimming, 1.5~10PF
C104	1	1	1	CT1100001	Trimming, 1.5~10PF
C105	1	1	1	CT1100001	Trimming, 1.5~10PF
C106	1	1	1	CT1100001	Trimming, 1.5~10PF
C107	1	1	1	DD1615001	Ceramic, 15PF $\pm 10\%$
C108	1	1	1	DK1710201	Ceramic, 1000PF $\pm 20\%$
C109	1	1	1	DD1105001	Ceramic, 5PF $\pm 0.5PF$
C110	1	1	1	DK1710201	Ceramic, 1000PF $\pm 20\%$
C111	1	1	1	DD1615001	Ceramic, 15PF $\pm 10\%$
C112	1	1	1	DK1710201	Ceramic, 1000PF $\pm 20\%$
C113	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C114	1	1	1	DD1001001	Ceramic, 1.0PF $\pm 0.25PF$
C115	1	1	1	DD1615001	Ceramic, 15PF $\pm 10\%$
C116	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C117	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C118	1	1	1	DD1620003	Ceramic, 20PF $\pm 10\%$
C119	1	1	1	DD1210006	Ceramic, 10PF $\pm 1PF$
C120	1	1	1	DD1615003	Ceramic, 15PF $\pm 10\%$
C121	1	1	1	DD1615003	Ceramic, 15PF $\pm 10\%$
C122	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C123	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C124	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C128	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
C127	1	1	1	DK1710301	Ceramic, 0.01 $\mu F \pm 20\%$
<b>P100-COILS &amp; TRANSF.</b>					
L101	1	1	1	LA1202603	Antenna Coil
L102	1	1	1	LA1202604	RF Coil
L103	1	1	1	LA1202605	RF Coil
L104	1	1	1	LO1202608	OSC Coil
L105	1	1	1	LI1001601	IFT
<b>P100-MISCELLANEOUS</b>					
H101	1	1	1	HF200191A	FET, 2SK19(Y)
H102	1	1	1	HF200191A	FET, 2SK19(Y)
H103	1	1	1	HT305351B	Transistor, 2SC535(B)
J101	1	1	1	YP1000094	Plug
J102	1	1	1	YP1000094	Plug
J103	1	1	1	57271240W	Lug Eyelet
J104	1	1	1	57271240W	Lug Eyelet
J105	1	1	1	57271240W	Lug Eyelet
J106	1	1	1	57271240W	Lug Eyelet
J107	1	1	1	57271240W	Lug Eyelet
J108	1	1	1	57271240W	Lug Eyelet
J109	1	1	1	57271240W	Lug Eyelet
<b>AM TUNER CIRCUIT BOARD-P150</b>					
P150	1	1	1	YD2909001	P.W. Board, AM Tuner(Print Only)
	1	1	1	ZZ2927101	P.W. Board Assembly
<b>P150-RESISTORS</b>					
All resistors are $\pm 5\%$ and $\frac{1}{4}W$ , unless otherwise indicated.					
R151	1	1	1	RT0510314	10K $\Omega$
R152	1	1	1	RT0530314	30K $\Omega$
R153	1	1	1	RT0582314	82K $\Omega$
R154	1	1	1	RT0522314	22K $\Omega$
R156	1	1	1	RT0510414	100K $\Omega$
R157	1	1	1	RC0000012	0 $\Omega$ , $\frac{1}{4}W$
R158	1	1	1	RT0539314	39K $\Omega$
R159	1	1	1	RT0539214	3.9K $\Omega$
R160	1	1	1	RC0000012	0 $\Omega$ , $\frac{1}{4}W$

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
R161	1	1	1	RT0543214	4.3K $\Omega$
R162	1	1	1	RT0510114	100 $\Omega$
R163	1	1	1	RT0515214	1.5K $\Omega$
R164	1	1	1	RT0533114	330 $\Omega$
R165	1	1	1	RC0000012	0 $\Omega$ , $\frac{1}{2}W$
R166	1	1	1	RC0000012	0 $\Omega$ , $\frac{1}{2}W$
R167	1	1	1	RT0522214	2.2K $\Omega$
R168	1	1	1	RT0582314	82K $\Omega$
R169	1	1	1	RT0562414	620K $\Omega$
R170	1	1	1	RT0551114	510 $\Omega$
R171	1	1	1	RT0522214	2.2K $\Omega$
R172	1	1	1	RT0556214	5.6K $\Omega$
R173	1	1	1	RT0510214	1K $\Omega$
R174	1	1	1	RT0510114	100 $\Omega$
R175	1	1	1	RT0510414	100K $\Omega$
R176	1	1	1	RT0510314	10K $\Omega$
R177	1	1	1	RT0582214	8.2K $\Omega$
R178	1	1	1	RA0103025	Trimming, 10K $\Omega$ (B)
R179	1	1	1	RT0510314	10K $\Omega$
R180	1	1	1	RT0515214	1.5K $\Omega$
R181	1	1	1	RT0510114	100 $\Omega$
R182	1	1	1	RT0515214	1.5K $\Omega$
<b>P150-CAPACITORS</b>					
C151	1	1	1	DK1710301	Ceramic, 0.01 $\mu F$ ±20%
C152	1	1	1	DF1747305	Film, 0.047 $\mu F$ ±20%
C154	1	1	1	DK1710301	Ceramic, 0.01 $\mu F$ ±20%
C155	1	1	1	DF6545101	Film, 450PF±5%
C156	1	1	1	DD1615001	Ceramic, 15PF±10%
C157	1	1	1	DK1710301	Ceramic, 0.01 $\mu F$ ±20%
C158	1	1	1	DK1840302	Ceramic, 0.04 $\mu F$ +80%, -20%
C159	1	1	1	DK1840302	Ceramic, 0.04 $\mu F$ +80%, -20%
C160	1	1	1	DK1710301	Ceramic, 0.01 $\mu F$ ±20%
C161	1	1	1	DK1710301	Ceramic, 0.01 $\mu F$ ±20%
C162	1	1	1	DK1710301	Ceramic, 0.01 $\mu F$ ±20%
C163	1	1	1	DF1615305	Film, 0.015 $\mu F$ ±10%
C164	1	1	1	DF1627305	Film, 0.027 $\mu F$ ±10%
C165	1	1	1	DF1756205	Film, 5600PF±20%
C166	1	1	1	DK1840302	Film, 0.04 $\mu F$ +80%, -20%
C167	1	1	1	EA2260169	Electrolytic, 22 $\mu F$ , 16V
C168	1	1	1	EA1070169	Electrolytic, 100 $\mu F$ , 16V
C169	1	1	1	EA4750359	Electrolytic, 4.7 $\mu F$ , 35V
C170	1	1	1	EA1070169	Electrolytic, 100 $\mu F$ , 16V
C171	1	1	1	EA1050509	Electrolytic, 1 $\mu F$ , 50V
C172	1	1	1	EA1070169	Electrolytic, 100 $\mu F$ , 16V
C173	1	1	1	EA4750359	Electrolytic, 4.7 $\mu F$ , 35V
<b>P150-MISCELLANEOUS</b>					
H151	1	1	1	HC1000506	I.C., $\mu PC30C$
H152	1	1	1	HT313272A	Transistor, 2SC1327 S,T
H153	1	1	1	HT104942A	Transistor, 2SA494 Y,G
H154	1	1	1	HT104942A	Transistor, 2SA494 Y,G
H155	1	1	1	HH0000212	Thermistor, 31D27
L151	1	1	1	LA1001019	RF Coil, AM
L152	1	1	1	LO1001050	OSC Coil, AM
L153	1	1	1	LI1028003	IFT, AM Ceramic Filter
L154	1	1	1	LC1332002	Choke Coil, 3.3 $\mu H$
L155	1	1	1	LC1332002	Choke Coil, 3.3 $\mu H$
J151	1	1	1	YP1000113	Plug
J152	1	1	1	YP1000113	Plug
J153	1	1	1	YP1000113	Plug

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
J155	1	1	1	YP1000113	Plug
J156	1	1	1	YP1000113	Plug
J157	1	1	1	YP1000113	Plug
J158	1	1	1	YP1000113	Plug
J159	1	1	1	YP1000113	Plug
J160	1	1	1	YP1000113	Plug
J161	1	1	1	YP1000113	Plug
<b>FM IF &amp; DETECTOR CIRCUIT BOARD-P200</b>					
P200	1	1	1	YD2927001	P.W. Board, FM IF & Detector (Print
	1	1	1	ZZ2927001	P.W. Board Assembly Only)
<b>P200-RESISTORS</b>					
All resistors are ±5% and $\frac{1}{4}W$ .					
R201	1	1	1	RT0533014	33 $\Omega$
R202	1	1	1	RT0510114	100 $\Omega$
R203	1	1	1	RT0512314	12K $\Omega$
R204	1	1	1	RT0547214	4.7K $\Omega$
R205	1	1	1	RT0510214	1K $\Omega$
R206	1	1	1	RT0522214	2.2K $\Omega$
R208	1	1	1	RT0533314	33K $\Omega$
R210	1	1	1	RT0533014	33 $\Omega$
R211	1	1	1	RT0515214	1.5K $\Omega$
R212	1	1	1	RT0533214	3.3K $\Omega$
R213	1	1	1	RT0547114	470 $\Omega$
R214	1	1	1	RT0510214	1K $\Omega$
R215	1	1	1	RT0510114	100 $\Omega$
R216	1	1	1	RT0515214	1.5K $\Omega$
R217	1	1	1	RT0533214	3.3K $\Omega$
R218	1	1	1	RT0515114	150 $\Omega$
R219	1	1	1	RT0510214	1K $\Omega$
R220	1	1	1	RT0510214	1K $\Omega$
R222	1	1	1	RT0510414	100K $\Omega$
R223	1	1	1	RT0575014	75 $\Omega$
R224	1	1	1	RT0527114	270 $\Omega$
R225	1	1	1	RT0515114	150 $\Omega$
R226	1	1	1	RT0515214	1.5K $\Omega$
R227	1	1	1	RT0533214	3.3K $\Omega$
R228	1	1	1	RT0515114	150 $\Omega$
R229	1	1	1	RT0510214	1K $\Omega$
R230	1	1	1	RT0510214	1K $\Omega$
R231	1	1	1	RT0515114	150 $\Omega$
R232	1	1	1	RT0510414	100K $\Omega$
R235	1	1	1	RT0510114	100 $\Omega$
R236	1	1	1	RT0513114	130 $\Omega$
R237	1	1	1	RT0582214	8.2K $\Omega$
R238	1	1	1	RT0515314	15K $\Omega$
R239	1	1	1	RT0515114	150 $\Omega$
R240	1	1	1	RT0510214	1K $\Omega$
R241	1	1	1	RT0510214	1K $\Omega$
R242	1	1	1	RT0568314	68K $\Omega$
R243	1	1	1	RT0510114	100 $\Omega$
R244	1	1	1	RT0510414	100K $\Omega$
R245	1	1	1	RT0527114	270 $\Omega$
R246	1	1	1	RT0582214	8.2K $\Omega$
R247	1	1	1	RT0515314	15K $\Omega$
R248	1	1	1	RT0515114	150 $\Omega$
R249	1	1	1	RT0510214	1K $\Omega$
R250	1	1	1	RT0510214	1K $\Omega$
R252	1	1	1	RT0510414	100K $\Omega$
R253	1	1	1	RT0515114	150 $\Omega$
R254	1	1	1	RT0515314	15K $\Omega$

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
R256	1	1	1	RT0512314	12K $\Omega$
R257	1	1	1	RT0582214	8.2K $\Omega$
R258	1	1	1	RT0515314	15K $\Omega$
R259	1	1	1	RT0515114	150 $\Omega$
R260	1	1	1	RT0510214	1K $\Omega$
R261	1	1	1	RT0522314	22K $\Omega$
R263	1	1	1	RT0522114	220 $\Omega$
R264	1	1	1	RT0582114	820 $\Omega$
R265	1	1	1	RT0582114	820 $\Omega$
R266	1	1	1	RT0510314	10K $\Omega$
R267	1	1	1	RT0510314	10K $\Omega$
R268	1	1	1	RT0510114	100 $\Omega$
R269	1	1	1	RT0527314	27K $\Omega$
R270	1	1	1	RT0510114	100 $\Omega$
R271	1	1	1	RT0510114	100 $\Omega$
R272	1	1	1	RT0556214	5.6K $\Omega$
R273	1	1	1	RT0510414	100K $\Omega$
R274	1	1	1	RT0518414	180K $\Omega$
R275	1	1	1	RT0510414	100K $\Omega$
R276	1	1	1	RT0522214	2.2K $\Omega$
R277	1	1	1	RT0510114	100 $\Omega$
<b>P200-CAPACITORS</b>					
C201	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C202	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C203	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C204	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C206	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C208	1	1	1	DK1810402	Ceramic, 0.1 $\mu$ F+80%, -20%
C209	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C210	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C211	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C212	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C213	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C216	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C217	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C218	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C221	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C222	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C223	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C224	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C225	1	1	1	DD1620101	Ceramic, 200PF $\pm$ 10%
C226	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C227	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C228	1	1	1	DK1840301	Ceramic, 0.04 $\mu$ F+80%, -20%
C229	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C230	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C231	1	1	1	DK1710201	Ceramic, 0.001 $\mu$ F $\pm$ 20%
C232	1	1	1	DK1810402	Ceramic, 0.1 $\mu$ F+80%, -20%
C233	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C234	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C235	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C236	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C237	1	1	1	EA1060169	Electrolytic, 10 $\mu$ F, 16V
C238	1	1	1	DD1620101	Ceramic, 200PF $\pm$ 20%
C239	1	1	1	DD1620101	Ceramic, 200PF $\pm$ 20%
C240	1	1	1	EA1070109	Electrolytic, 100 $\mu$ F, 10V
C241	1	1	1	DD1620101	Ceramic, 200PF $\pm$ 20%
C242	1	1	1	EA1070169	Electrolytic, 100 $\mu$ F, 16V
C243	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
C244	1	1	1	EA1060169	Electrolytic, 10 $\mu$ F, 16V
C245	1	1	1	EA2260169	Electrolytic, 22 $\mu$ F, 16V

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
C246	1	1	1	EA2260169	Electrolytic, 22 $\mu$ F, 16V
C247	1	1	1	DK1710301	Ceramic, 0.01 $\mu$ F $\pm$ 20%
C248	1	1	1	DD1540001	Ceramic, 40PF $\pm$ 5%
C249	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F+80%, -20%
<b>P200-FILTERS &amp; SEMICONDUCTORS</b>					
F201	1	1	1	FF1107005	Ceramic Filter, SFE107MD-1
F202	1	1	1	FF1107005	Ceramic Filter, SFE107MD-1
F203	1	1	1	FF1107005	Ceramic Filter, SFE107MD-1
H201	1	1	1	HT308291C	Transistor, 2SC829C
H202	1	1	1	HT308291C	Transistor, 2SC829C
H203	1	1	1	HT308291C	Transistor, 2SC829C
H204	1	1	1	HT308291C	Transistor, 2SC829C
H205	1	1	1	HT308291C	Transistor, 2SC829C
H206	1	1	1	HT308291C	Transistor, 2SC829C
H207	1	1	1	HT308291C	Transistor, 2SC829C
H208	1	1	1	HT306441B	Transistor, 2SC644S
H210	1	1	1	HD1000105	Diode, 1N60
H211	1	1	1	HD1000105	Diode, 1N60
H216	1	1	1	HD2001105	Diode, 1S1555
H217	1	1	1	HD2001105	Diode, 1S1555
H220	1	1	1	HD2001105	Diode, 1S1555
H221	1	1	1	HD2001105	Diode, 1S1555
H222	1	1	1	HD1000105	Diode, 1N60
H223	1	1	1	HD1000105	Diode, 1N60
H224	1	1	1	HD2001105	Diode, 1S1555
H225	1	1	1	HD2001105	Diode, 1S1555
H226	1	1	1	HD1000105	Diode, 1N60
H227	1	1	1	HD1000105	Diode, 1N60
H228	1	1	1	HD2001105	Diode, 1S1555
H229	1	1	1	HD2001105	Diode, 1S1555
H230	1	1	1	HD1000302	Diode, 20A90M
H231	1	1	1	HD1000302	Diode, 20A90M
H232	1	1	1	HD1000302	Diode, 20A90M
<b>P200-MISCELLANEOUS</b>					
L201	1	1	1	LI1401623	IFT, FM
L202	1	1	1	LC1332002	Choke Coil, 3.3 $\mu$ H
J201	1	1	1	YP1000113	Plug
J202	1	1	1	YP1000113	Plug
J203	1	1	1	YP1000113	Plug
J204	1	1	1	YP1000113	Plug
J205	1	1	1	YP1000113	Plug
J206	1	1	1	YP1000113	Plug
J207	1	1	1	YP1000113	Plug
J208	1	1	1	YP1000113	Plug
J209	1	1	1	YP1000113	Plug
J211	1	1	1	YP1000113	Plug
<b>FM MPX &amp; MUTING CIRCUIT BOARD-P300</b>					
P300	1	1	1	YD2927002	P.W. Board, FM MPX & Muting (Print Only)
	1	1	1	ZZ2927002	P.W. Board Assembly
<b>P300-RESISTORS</b>					
All resistors are $\pm$ 5% and $\frac{1}{4}$ W, unless otherwise indicated.					
R301	1	1	1	RA0202011	Trimming, 2K $\Omega$ (B)
R302	1	1	1	RT0522414	220K $\Omega$
R303	1	1	1	RT0556314	56K $\Omega$



U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
R304	1	1	1	RT0568314	68K $\Omega$
R305	1	1	1	RT0510114	100 $\Omega$
R306	1	1	1	RT0518414	180K $\Omega$
R307	1	1	1	RT0522414	220K $\Omega$
R308	1	1	1	RT0512414	120K $\Omega$
R309	1	1	1	RT0510414	100K $\Omega$
R310	1	1	1	RT0568214	6.8K $\Omega$
R311	1	1	1	RA0502020	Trimming, 5K $\Omega$ (B)
R312	1	1	1	RT0516314	16K $\Omega$
R313	1	1	1	RT0510214	1K $\Omega$
R314	1	1	1	RT0520314	20K $\Omega$
R315	1	1	1	RT0510214	1K $\Omega$
R316	1	1	1	RT0510214	1K $\Omega$
R317	1	1	1	RT0539214	3.9K $\Omega$
R318	1	1	1	RT0539214	3.9K $\Omega$
R319	1	1	1	RT0524314	24K $\Omega$
R320	1	1	1	RT0522314	22K $\Omega$
R321	1	1	1	RT0510114	100 $\Omega$
R322	1	1	1	RC0000012	0 $\Omega$ , 1/4W
R323	1	1	1	RT0522414	220K $\Omega$
R324	1	1	1	RT0522414	220K $\Omega$
R325	1	1	1	RT0530314	30K $\Omega$
R326	1	1	1	RT0530314	30K $\Omega$
R327	1	1	1	RT0510414	100K $\Omega$
R328	1	1	1	RT0510414	100K $\Omega$
R329	1	1	1	RT0515514	1.5M $\Omega$
R330	1	1	1	RT0515514	1.5M $\Omega$
R331	1	1	1	RT0551114	510 $\Omega$
R332	1	1	1	RT0551114	510 $\Omega$
R333	1	1	1	RT0522314	22K $\Omega$
R334	1	1	1	RT0522314	22K $\Omega$
R335	1	1	1	RT0510114	100 $\Omega$
R336	1	1	1	RT0510114	100 $\Omega$
R337	1	1	1	RT0582214	8.2K $\Omega$
R338	1	1	1	RT0582214	8.2K $\Omega$
R339	1	1	1	RT0547114	470 $\Omega$
R340	1	1	1	RT0547114	470 $\Omega$
R341	1	1	1	RT0522414	220K $\Omega$
R342	1	1	1	RT0522414	220K $\Omega$
R343	1	1	1	RT0539214	3.9K $\Omega$
R344	1	1	1	RT0556414	560K $\Omega$
R345	1	1	1	RT0515314	15K $\Omega$
R346	1	1	1	RT0512414	120K $\Omega$
R347	1	1	1	RT0510114	100 $\Omega$
R348	1	1	1	RT0522414	220K $\Omega$
R349	1	1	1	RT0556214	5.6K $\Omega$
R350	1	1	1	RT0510314	10K $\Omega$
R351	1	1	1	RT0510114	100 $\Omega$
R352	1	1	1	RT0533314	33K $\Omega$
R353	1	1	1	RT0510114	100 $\Omega$
R354	1	1	1	RT0510414	100K $\Omega$
R355	1	1	1	RT0527314	27K $\Omega$
R356	1	1	1	RT0510414	100K $\Omega$
R357	1	1	1	RT0510214	1K $\Omega$
R358	1	1	1	RT0510114	100 $\Omega$
R359	1	1	1	RT0527314	27K $\Omega$
R360	1	1	1	RT0533314	33K $\Omega$
R361	1	1	1	RT0510414	100K $\Omega$
R362	1	1	1	RA0104018	Trimming, 100K $\Omega$ (B)
R363	1	1	1	RA0103025	Trimming, 10K $\Omega$ (B)
R364	1	1	1	RT0522214	2.2K $\Omega$
R365	1	1	1	RT0510114	100 $\Omega$
R366	1	1	1	RT0510314	10K $\Omega$
R367	1	1	1	RT0510114	100 $\Omega$
R368	1	1	1	RT0527414	270K $\Omega$
R369	1	1	1	RT0510314	10K $\Omega$
R370	1	1	1	RT0512314	12K $\Omega$
R371	1	1	1	RT0522114	220 $\Omega$
R375	1	1	1	RT0510114	100 $\Omega$
R376	1	1	1	RT0510414	100K $\Omega$
R377	1	1	1	RT0510414	100K $\Omega$
R378	1	1	1	RT0556214	5.6K $\Omega$
R379	1	1	1	RT0522214	2.2K $\Omega$
R380	1	1	1	RT0527214	2.7K $\Omega$
C301	1	1	1	DF1639205	Film, 3900PF $\pm$ 10%
C302	1	1	1	EA3360109	Electrolytic, 33 $\mu$ F, 10V
C303	1	1	1	DF1722305	Film, 0.0022 $\mu$ F $\pm$ 20%
C304	1	1	1	EA2260169	Electrolytic, 22 $\mu$ F, 16V
C305	1	1	1	DF5547101	Film, 470PF $\pm$ 5%
C306	1	1	1	EA2260169	Electrolytic, 22 $\mu$ F, 16V
C307	1	1	1	EQ4740501	Electrolytic, 0.47 $\mu$ F, $\pm$ 20%, 50V
C308	1	1	1	EQ2240501	Electrolytic, 0.22 $\mu$ F, $\pm$ 20%, 50V
C309	1	1	1	EQ2240501	Electrolytic, 0.22 $\mu$ F, $\pm$ 20%, 50V
C310	1	1	1	DF1747301	Film, 0.047 $\mu$ F $\pm$ 20%, 50V
C311	1	1	1	DF1515205	Film, 1500PF $\pm$ 5%
C312	1	1	1	DF1515205	Film, 1500PF $\pm$ 5%
C313	1	1	1	DD1536101	Ceramic, 360PF $\pm$ 5%
C314	1	1	1	DD1536101	Ceramic, 360PF $\pm$ 5%
C315	1	1	1	DF1533205	Film, 3300PF $\pm$ 5%
C316	1	1	1	DF1533205	Film, 3300PF $\pm$ 5%
C317	1	1	1	DF1515205	Film, 1500PF $\pm$ 5%
C318	1	1	1	DF1515205	Film, 1500PF $\pm$ 5%
C319	1	1	1	DF1522205	Film, 2200PF $\pm$ 5%
C320	1	1	1	DF1522205	Film, 2200PF $\pm$ 5%
C321	1	1	1	DF1510205	Film, 1000PF $\pm$ 5%
C322	1	1	1	DF1510205	Film, 1000PF $\pm$ 5%
C323	1	1	1	EV2240351	Electrolytic, 0.22 $\mu$ F $\pm$ 20%, 35V
C324	1	1	1	EV2240351	Electrolytic, 0.22 $\mu$ F $\pm$ 20%, 35V
C325	1	1	1	EV1050352	Electrolytic, 1 $\mu$ F $\pm$ 20%, 35V
C326	1	1	1	EV1050352	Electrolytic, 1 $\mu$ F $\pm$ 20%, 35V
C327	1	1	1	EA2270259	Electrolytic, 220 $\mu$ F, 25V
C328	1	1	1	EA2270169	Electrolytic, 220 $\mu$ F, 16V
C329	1	1	1	EA1060169	Electrolytic, 10 $\mu$ F, 16V
C330	1	1	1	DK1840302	Ceramic, 0.04 $\mu$ F $\pm$ 80%, -20%
C331	1	1	1	EA1050509	Electrolytic, 1 $\mu$ F, 50V
C332	1	1	1	EA1060169	Electrolytic, 10 $\mu$ F, 16V
C333	1	1	1	DD1210001	Ceramic, 10PF $\pm$ 10%
C334	1	1	1	DF1668301	Film, 0.068 $\mu$ F $\pm$ 10%
C335	1	1	1	DF1740301	Film, 0.04 $\mu$ F $\pm$ 20%
C336	1	1	1	DK1810402	Ceramic, 0.1 $\mu$ F $\pm$ 80%, -20%
C337	1	1	1	EA4750359	Electrolytic, 4.7 $\mu$ F, 35V
C338	1	1	1	EA1050509	Electrolytic, 1 $\mu$ F, 50V
C343	1	1	1	DF1710402	Film, 0.1 $\mu$ F $\pm$ 20%
C344	1	1	1	DK1820302	Ceramic, 0.02 $\mu$ F $\pm$ 80%, -20%
H301	1	1	1	HF200301C	FET, 2SK30(Y)
H302	1	1	1	HT308281D	Transistor, 2SC828S
H303	1	1	1	HT308281D	Transistor, 2SC828S
H304	1	1	1	HT307322A	Transistor, 2SC732 B or G
H305	1	1	1	HT307322A	Transistor, 2SC732 B or G
H306	1	1	1	HT104942A	Transistor, 2SA494 G or Y
H307	1	1	1	HT104942A	Transistor, 2SA494 G or Y
H308	1	1	1	HT308281D	Transistor, 2SC828 S
H309	1	1	1	HT308281D	Transistor, 2SC828 S
P300-CAPACITORS					
P300-SEMICONDUCTORS					

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
H310	1	1	1	HT308281D	Transistor, 2SC828 S
H311	1	1	1	HT308281D	Transistor, 2SC828 S
H312	1	1	1	HF200300A	FET, 2SK30 Y
H313	1	1	1	HT308281D	Transistor, 2SC828 S
H314	1	1	1	HT308281D	Transistor, 2SC828 S
H315	1	1	1	HT308281D	Transistor, 2SC828 S
H317	1	1	1	HT308281D	Transistor, 2SC828S
H318	1	1	1	HD1000105	Diode, 1N60
H319	1	1	1	HD1000105	Diode, 1N60
H321	1	1	1	HC1000401	I.C., HA1156
<b>P300-MISCELLANEOUS</b>					
L301	1	1	1	LS1029004	MPX Coil, 56mH
L302	1	1	1	LS1029004	MPX Coil, 56mH
L303	1	1	1	LS1029005	MPX Coil, 43mH
L304	1	1	1	LS1029005	MPX Coil, 43mH
L305	1	1	1	LC2105001	Choke Coil, 1mH
J301	1	1	1	YP1000113	Plug
J314	1	1	1	YP1000113	Plug
J317	1	1	1	YP1000113	Plug
J322	1	1	1	YP1000113	Plug
<b>DOLBY LEVEL CIRCUIT BOARD-PC01</b>					
PC01	1	1	1	YD2916003	P.W. Board, Dolby Level (Print Only)
	1	1	1	ZZ2916003	P. W. Board Assembly
<b>PC01-RESISTORS</b>					
RC01	1	1	1	RA0104015	Trimming, 100K $\Omega$ (B)
RC02	1	1	1	RA0104015	Trimming, 100K $\Omega$ (B)
RC03	1	1	1	RT0568314	68K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC04	1	1	1	RT0568314	68K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC05	1	1	1	RT0510414	100K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC06	1	1	1	RT0510414	100K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC07	1	1	1	RT0539214	3.9K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC08	1	1	1	RT0539214	3.9K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC09	1	1	1	RT0510414	100K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RC10	1	1	1	RT0510414	100K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
<b>PC01-CAPACITORS</b>					
CC01	1	1	1	EV1050256	Electrolytic, 1 $\mu F$ , 25V
CC02	1	1	1	EV1050256	Electrolytic, 1 $\mu F$ , 25V
CC03	1	1	1	EV1050256	Electrolytic, 1 $\mu F$ , 25V
CC04	1	1	1	EV1050256	Electrolytic, 1 $\mu F$ , 25V
<b>PC01-MISCELLANEOUS</b>					
JC01	1	1	1	YP1000113	Plug
JC02	1	1	1	YP1000113	Plug
JC03	1	1	1	YP1000113	Plug
JC04	1	1	1	YP1000113	Plug
JC05	1	1	1	YP1000113	Plug
JC06	1	1	1	YP1000113	Plug
JC07	1	1	1	YP1000113	Plug
JC08	1	1	1	YP1000113	Plug
HC01	1	1	1	HT313272A	Transistor, 2SC1327 S.T
HC02	1	1	1	HT313272A	Transistor, 2SC1327 S.T
<b>ANTENNA MUTING CIRCUIT BOARD-PU01</b>					
PU01	1	1	1	YD2916007	P.W. Board, Antenna Muting (Print Only)
	1	1	1	ZZ2916007	P.W. Board Assembly

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
RU04	1	1	1	RK0203032	Variable Resistor, 20K $\Omega$ (B)
RU05	1	1	1	RK0503010	Variable Resistor, 50K $\Omega$ (B)
RU06	1	1	1	RT0543214	Resistor, 4.3K $\Omega \pm 5\%$ , $\frac{1}{4}W$
LU01	1	1	1	LB3007526	Balun Coil
LU02	1	1	1	LC1154002	Choke Coil
JU01	1	1	1	YT0304009	Terminal, Antenna
JU02	1	1	1	YP1000113	Plug
JU07	1	1	1	YP1000113	Plug
<b>FUNCTION LAMP CIRCUIT BOARD-PY01</b>					
PY01	1	1	1	YD2916006	P.W. Board, Function Lamp(Print Only)
	1	1	1	ZZ2927106	P.W. Board Assembly
<b>PY01-MISCELLANEOUS</b>					
MY02	1	1	1	IN1008037	Lamp, AM, 8V 40mA
MY03	1	1	1	IN1008037	Lamp, FM, 8V 40mA
MY04	1	1	1	IN1008037	Lamp, PHONO, 8V 40mA
MY05	1	1	1	IN1008037	Lamp, TAPE 1, 8V 40mA
MY06	1	1	1	IN1008037	Lamp, AUX, 8V 40mA
JY02	1	1	1	YP1000113	Plug
JY11	1	1	1	YP1000113	Plug
<b>DIAL LAMP CIRCUIT BOARD-PZ01</b>					
PZ01	1	1	1	YD2886016	P.W. Board, Dial Lamp(Print Only)
	1	1	1	ZZ2927116	P.W. Board Assembly
<b>PZ01-MISCELLANEOUS</b>					
MZ01	1	1	1	IN1008007	Lamp
MZ05	1	1	1	IN1008007	Lamp
JZ01	1	1	1	YJ0800017	Socket
JZ10	1	1	1	YJ0800017	Socket
JZ11	1	1	1	YP1000113	Plug
JZ14	1	1	1	YP1000113	Plug
<b>FILTER &amp; DOLBY CIRCUIT BOARD-PH01</b>					
PH01	1	1	1	YD2915008	P.W. Board, Filter & Dolby(Print Only)
	1	1	1	ZZ2915008	P.W. Board Assembly
			1	ZZ2915808	P.W. Board Assembly
<b>PH01-RESISTORS</b>					
RH01	1	1	1	RT0510214	1K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH02	1	1	1	RT0510214	1K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH04	1	1	1	RT0510514	1M $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH05	1	1	1	RT0510514	1M $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH06	1	1	1	RT0547214	4.7K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH07	1	1	1	RT0547214	4.7K $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH08	1	1	1	RT0522514	2.2M $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
RH09	1	1	1	RT0522514	2.2M $\Omega$ $\pm 5\%$ , $\frac{1}{4}W$
<b>PH01-CAPACITORS, SWITCH &amp; PLUGS</b>					
CH01	1	1	1	DF1522205	Film, 0.0022 $\mu F \pm 10\%$ , 50V

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
CH02	1	1		DF1522205	Film, 0.0022 $\mu$ F $\pm$ 10%,50V
CH03	1	1	1	DF1668205	Film, 0.0068 $\mu$ F $\pm$ 10%,50V
CH04	1	1	1	DF1668205	Film, 0.0068 $\mu$ F $\pm$ 10%,50V
CH01				DF1510205	Film, 0.001 $\mu$ F $\pm$ 5%, 50V
CH02				DF1510205	Film, 0.001 $\mu$ F $\pm$ 5%, 50V
CH05	1	1	1	EV2240351	Electrolytic, 0.22 $\mu$ F $\pm$ 20%,35V
CH06	1	1	1	EV2240351	Electrolytic, 0.22 $\mu$ F $\pm$ 20%,35V
SH01	1	1	1	SP0404014	Pushswitch
JH01 ? JH28	1	1	1	YP1000120	Plug
<b>MAIN &amp; REMOTE SWITCH CIRCUIT BOARD-PT01</b>					
PT01	1	1	1	YD2915006	P.W. Board, Main & Remote Switch
	1	1	1	ZZ2915006	P.W. Board Assembly
<b>PT01-RESISTORS</b>					
RT01	1	1	1	RT0568314	68K $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
RT02	1	1	1	RT0568314	68K $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
RT03	1	1	1	RT0515314	15K $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
RT04	1	1	1	RT0515314	15K $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
RT05	1	1	1	GJ0533102	330 $\Omega$ $\pm$ 5%, 2W
RT06	1	1	1	GJ0533102	330 $\Omega$ $\pm$ 5%, 2W
RT07	1	1	1	GU0515112	150 $\Omega$ $\pm$ 5%, $\frac{1}{2}$ W
RT08	1	1	1	GU0515112	150 $\Omega$ $\pm$ 5%, $\frac{1}{2}$ W
<b>PT01-CAPACITORS</b>					
CT01	1	1	1	DD1612101	Ceramic, 120PF $\pm$ 10%, 50V
CT02	1	1	1	DD1612101	Ceramic, 120PF $\pm$ 10%, 50V
CT03	1	1	1	DF1627305	Film, 0.027 $\mu$ F $\pm$ 10%, 50V
CT04	1	1	1	DF1627305	Film, 0.027 $\mu$ F $\pm$ 10%, 50V
<b>PT01-MISCELLANEOUS</b>					
ST01	1	1	1	SP0404011	Pushswitch
JT01 ? JT16	1	1	1	YP1000120	Plug
<b>EQUALIZER AMP. CIRCUIT BOARD-P400</b>					
P400	1	1	1	YD2915003	P.W. Board, Equalizer Amp.(Print Only)
	1	1	1	ZZ2915003	P.W. Board Assembly
<b>P400-RESISTORS</b> All resistors are $\pm$ 5% and $\frac{1}{4}$ W.					
R401	1	1	1	RT0582314	82K $\Omega$
R402	1	1	1	RT0582314	82K $\Omega$
R403	1	1	1	RT0547114	470 $\Omega$
R404	1	1	1	RT0547114	470 $\Omega$
R405	1	1	1	RN0539414	390K $\Omega$
R406	1	1	1	RN0539414	390K $\Omega$
R407	1	1	1	RT0522314	22K $\Omega$
R408	1	1	1	RT0522314	22K $\Omega$
R409	1	1	1	RT0582114	820 $\Omega$
R410	1	1	1	RT0582114	820 $\Omega$
R411	1	1	1	RN0510414	100K $\Omega$
R412	1	1	1	RN0510414	100K $\Omega$

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
R413	1	1	1	RT0533314	33K $\Omega$
R414	1	1	1	RT0533314	33K $\Omega$
R415	1	1	1	RT0556214	5.6K $\Omega$
R416	1	1	1	RT0556214	5.6K $\Omega$
R417	1	1	1	RT0518214	1.8K $\Omega$
R418	1	1	1	RT0518214	1.8K $\Omega$
R419	1	1	1	RT0547214	4.7K $\Omega$
R420	1	1	1	RT0547214	4.7K $\Omega$
R421	1	1	1	RT0522414	220K $\Omega$
R422	1	1	1	RT0522414	220K $\Omega$
R423	1	1	1	RT0556314	56K $\Omega$
R424	1	1	1	RT0556314	56K $\Omega$
R425	1	1	1	RT0533214	3.3K $\Omega$
R426	1	1	1	RT0533214	3.3K $\Omega$
R427	1	1	1	RN0582414	820K $\Omega$
R428	1	1	1	RN0582414	820K $\Omega$
R429	1	1	1	RT0510114	100 $\Omega$
<b>P400-CAPACITORS</b>					
C401	1	1	1	EV2250256	Electrolytic, 2.2 $\mu$ F $\pm$ 20%, 25V
C402	1	1	1	EV2250256	Electrolytic, 2.2 $\mu$ F $\pm$ 20%, 25V
C403	1	1	1	DD1520101	Ceramic, 200PF $\pm$ 10%, 50V
C404	1	1	1	DD1520101	Ceramic, 200PF $\pm$ 10%, 50V
C405	1	1	1	DD1610101	Ceramic, 100PF $\pm$ 10%, 50V
C406	1	1	1	DD1610101	Ceramic, 100PF $\pm$ 10%, 50V
C407	1	1	1	EE2260251	Electrolytic, 22 $\mu$ F $\pm$ 20%, 25V
C408	1	1	1	EE2260251	Electrolytic, 22 $\mu$ F $\pm$ 20%, 25V
C409	1	1	1	DD1615001	Ceramic, 15PF $\pm$ 10%, 50V
C410	1	1	1	DD1615001	Ceramic, 15PF $\pm$ 10%, 50V
C411	1	1	1	EA4760169	Electrolytic, 47 $\mu$ F +100%,-10%,16V
C412	1	1	1	EA4760169	Electrolytic, 47 $\mu$ F +100%,-10%,16V
C413	1	1	1	DD1610101	Ceramic, 100PF $\pm$ 10%, 50V
C414	1	1	1	DD1610101	Ceramic, 100PF $\pm$ 10%, 50V
C415	1	1	1	DF1747401	Film, 0.47 $\mu$ F $\pm$ 20%, 50V
C416	1	1	1	DF1747401	Film, 0.47 $\mu$ F $\pm$ 20%, 50V
C417	1	1	1	DF5412201	Film, 1200PF $\pm$ 2%, 50V
C418	1	1	1	DF5412201	Film, 1200PF $\pm$ 2%, 50V
C419	1	1	1	DF5547201	Film, 4700PF $\pm$ 5%, 50V
C420	1	1	1	DF5547201	Film, 4700PF $\pm$ 5%, 50V
C421	1	1	1	EA1070509	Electrolytic, 100 $\mu$ F+100%,-10%,50V
C423	1	1	1	DD1650001	Ceramic, 50PF $\pm$ 10%, 50V
C424	1	1	1	DD1650001	Ceramic, 50PF $\pm$ 10%, 50V
<b>P400-MISCELLANEOUS</b>					
H401	1	1	1	HT313281T	Transistor, 2SC1328T
H402	1	1	1	HT313281T	Transistor, 2SC1328T
H403	1	1	1	HT313282A	Transistor, 2SC1328S,T
H404	1	1	1	HT313282A	Transistor, 2SC1328S,T
H405	1	1	1	HT313281T	Transistor, 2SC1328T
H406	1	1	1	HT313281T	Transistor, 2SC1328T
J401 ? J407	1	1	1	YP1000113	Plug
<b>PRE &amp; TONE AMP.CIRCUIT BOARD -PE01</b>					
PE01	1	1	1	YD2915004	P.W. Board, Pre & Tone Amp. (Print Only)
	1	1	1	ZZ2915004	P.W. Board Assembly

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
					<b>PE01—RESISTORS</b> All resistors are $\pm 5\%$ and $\frac{1}{4}W$ , unless otherwise indicated.
RE01	1	1	1	RT0547414	470K $\Omega$
RE02	1	1	1	RT0547414	470K $\Omega$
RE03	1	1	1	RT0539114	390 $\Omega$
RE04	1	1	1	RT0539114	390 $\Omega$
RE05	1	1	1	RN0510514	1M $\Omega$
RE06	1	1	1	RN0510514	1M $\Omega$
RE07	1	1	1	RN0510414	100K $\Omega$
RE08	1	1	1	RT0510314	10K $\Omega$
RE09	1	1	1	RT0527314	27K $\Omega$
RE10	1	1	1	RT0527314	27K $\Omega$
RE11	1	1	1	RT0510214	1K $\Omega$
RE12	1	1	1	RT0510214	1K $\Omega$
RE13	1	1	1	RT0551214	5.1K $\Omega$
RE14	1	1	1	RT0551214	5.1K $\Omega$
RE15	1	1	1	RT0510214	1K $\Omega$
RE16	1	1	1	RT0510214	1K $\Omega$
RE17	1	1	1	RT0547414	470K $\Omega$
RE18	1	1	1	RT0547414	470K $\Omega$
RE19	1	1	1	RT0556214	5.6K $\Omega$
RE20	1	1	1	RT0556214	5.6K $\Omega$
RE21	1	1	1	RT0512314	12K $\Omega$
RE22	1	1	1	RT0512314	12K $\Omega$
RE23	1	1	1	RT0515414	150K $\Omega$
RE24	1	1	1	RT0515414	150K $\Omega$
RE25	1	1	1	RT0556214	5.6K $\Omega$
RE26	1	1	1	RT0556214	5.6K $\Omega$
RE27	1	1	1	RT0556214	5.6K $\Omega$
RE28	1	1	1	RT0556214	5.6K $\Omega$
RE29	1	1	1	RT0527314	27K $\Omega$
RE30	1	1	1	RT0527314	27K $\Omega$
RE31	1	1	1	RT0512314	12K $\Omega$
RE32	1	1	1	RT0512314	12K $\Omega$
RE33	1	1	1	RT0515314	15K $\Omega$
RE34	1	1	1	RT0515314	15K $\Omega$
RE35	1	1	1	RT0547414	470K $\Omega$
RE36	1	1	1	RT0547414	470K $\Omega$
RE37	1	1	1	RT0527314	27K $\Omega$
RE38	1	1	1	RT0527314	27K $\Omega$
RE39	1	1	1	RT0522514	2.2M $\Omega$
RE40	1	1	1	RT0522514	2.2M $\Omega$
RE41	1	1	1	RT0568314	68K $\Omega$
RE42	1	1	1	RT0568314	68K $\Omega$
RE43	1	1	1	RT0547314	47K $\Omega$
RE44	1	1	1	RT0547314	47K $\Omega$
RE45	1	1	1	RT0510314	10K $\Omega$
RE46	1	1	1	RT0510314	10K $\Omega$
RE47	1	1	1	RT0522114	220 $\Omega$
RE48	1	1	1	RT0522114	220 $\Omega$
RE49	1	1	1	RT0547414	470K $\Omega$
RE50	1	1	1	RT0547414	470K $\Omega$
RE51	1	1	1	RM0104005	Variable, 100K $\Omega$ (B)High
RE52	1	1	1	RM0104005	Variable, 100K $\Omega$ (B)Mid
RE53	1	1	1	RM0104005	Variable, 100K $\Omega$ (B)Low
RE54	1	1	1	RT0582114	820 $\Omega$
RE55	1	1	1	RC0000012	0 $\Omega$ , $\frac{1}{4}W$
					<b>PE01—CAPACITORS</b>
CE01	1	1	1	DF1722405	Film, 0.22 $\mu F$ $\pm 20\%$ , 50V
CE02	1	1	1	DF1722405	Film, 0.22 $\mu F$ $\pm 20\%$ , 50V

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
CE03	1	1	1	EA1060359	Electrolytic, 10 $\mu F$ +100%,-10%,35V
CE04	1	1	1	EA1060359	Electrolytic, 10 $\mu F$ +100%,-10%,35V
CE05	1	1	1	EE4750251	Electrolytic, 4.7 $\mu F$ $\pm 20\%$ , 25V
CE06	1	1	1	EE4750251	Electrolytic, 4.7 $\mu F$ $\pm 20\%$ , 25V
CE07	1	1	1	DD1610101	Ceramic, 100PF $\pm 10\%$ , 50V
CE08	1	1	1	DD1610101	Ceramic, 100PF $\pm 10\%$ , 50V
CE09	1	1	1	DF1622205	Film, 2200 $\mu F$ $\pm 10\%$ , 50V
CE10	1	1	1	DF1622205	Film, 2200 $\mu F$ $\pm 10\%$ , 50V
CE11	1	1	1	DF1668205	Film, 6800PF $\pm 10\%$ , 50V
CE12	1	1	1	DF1668205	Film, 6800PF $\pm 10\%$ , 50V
CE13	1	1	1	DF1622305	Film, 0.022 $\mu F$ $\pm 10\%$ , 50V
CE14	1	1	1	DF1622305	Film, 0.022 $\mu F$ $\pm 10\%$ , 50V
CE15	1	1	1	DF1622305	Film, 0.022 $\mu F$ $\pm 10\%$ , 50V
CE16	1	1	1	DF1622305	Film, 0.022 $\mu F$ $\pm 10\%$ , 50V
CE17	1	1	1	DF1610305	Film, 0.01 $\mu F$ $\pm 10\%$ , 50V
CE18	1	1	1	DF1610305	Film, 0.01 $\mu F$ $\pm 10\%$ , 50V
CE19	1	1	1	EE1050501	Electrolytic, 1 $\mu F$ $\pm 20\%$ , 50V
CE20	1	1	1	EE1050501	Electrolytic, 1 $\mu F$ $\pm 20\%$ , 50V
CE21	1	1	1	EE3350501	Electrolytic, 33 $\mu F$ $\pm 20\%$ , 50V
CE22	1	1	1	EE3350501	Electrolytic, 33 $\mu F$ $\pm 20\%$ , 50V
CE23	1	1	1	EQ1050501	Electrolytic, 1 $\mu F$ $\pm 30\%$ , 50V
CE24	1	1	1	EQ1050501	Electrolytic, 1 $\mu F$ $\pm 30\%$ , 50V
CE25	1	1	1	EA2270359	Electrolytic, 220 $\mu F$ +100%,-10%,35V
					<b>PE01-SEMICONDUCTORS &amp; PLUGS</b>
HE01	1	1	1	HT313283A	Transistor, 2SC1328 S,T,U
HE02	1	1	1	HT313283A	Transistor, 2SC1328 S,T,U
HE03	1	1	1	HT107632A	Transistor, 2SA763 4.5
HE04	1	1	1	HT107632A	Transistor, 2SA763 4.5
HE05	1	1	1	HT313283A	Transistor, 2SC1328 S,T,U
HE06	1	1	1	HT313283A	Transistor, 2SC1328 S,T,U
HE07	1	1	1	HT107632A	Transistor, 2SA763 4.5
HE08	1	1	1	HT107632A	Transistor, 2SA763 4.5
JE01	1	1	1	YP1000113	Plug
JE08	1	1	1		
					<b>MAIN AMP.CIRCUIT BOARD-P700</b>
P700	1	1	1	YD2890004	P.W. Board, Main Amp.(Print Only)
	1	1	1	ZZ2927204	P.W. Board Assembly
					<b>P700-RESISTORS</b> All resistors are $\pm 5\%$ and $\frac{1}{4}W$ , unless otherwise indicated.
R701	1	1	1	RT0520214	2K $\Omega$
R702	1	1	1	RT0520214	2K $\Omega$
R703	1	1	1	RT0533314	33K $\Omega$
R704	1	1	1	RT0533314	33K $\Omega$
R705	1	1	1	RT0568214	6.8K $\Omega$
R706	1	1	1	RT0568214	6.8K $\Omega$
R707	1	1	1	RT0510214	1K $\Omega$
R708	1	1	1	RT0510214	1K $\Omega$
R709	1	1	1	RT0556314	56K $\Omega$
R710	1	1	1	RT0556314	56K $\Omega$
R711	1	1	1	RT0547214	4.7K $\Omega$
R712	1	1	1	RT0547214	4.7K $\Omega$
R713	1	1	1	RA0502017	Trimming, 5K $\Omega$ (B)
R714	1	1	1	RA0502017	Trimming, 5K $\Omega$ (B)
R715	1	1	1	RT0515414	150K $\Omega$
R716	1	1	1	RT0515414	150K $\Omega$
R717	1	1	1	RT0520214	2K $\Omega$



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REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
R718	1	1	1	RT0520214	2K $\Omega$
R719	1	1	1	RT0533314	33K $\Omega$
R720	1	1	1	RT0533314	33K $\Omega$
R721	1	1	1	GF0510212	1K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R722	1	1	1	RT0524214	2.4K $\Omega$
R723	1	1	1	RT0524214	2.4K $\Omega$
R724	1	1	1	RT0547214	4.7K $\Omega$
R725	1	1	1	RT0547214	4.7K $\Omega$
R728	1	1	1	RT0522114	220 $\Omega$
R729	1	1	1	RT0522114	220 $\Omega$
R730	1	1	1	GF0533014	33 $\Omega$
R731	1	1	1	GF0533014	33 $\Omega$
R732	1	1	1	GF0543114	430 $\Omega$
R733	1	1	1	GF0543114	430 $\Omega$
R734	1	1	1	GF0527114	270 $\Omega$
R735	1	1	1	GF0527114	270 $\Omega$
R736	1	1	1	GF0524214	2.4K $\Omega$
R737	1	1	1	GF0524214	2.4K $\Omega$
R738	1	1	1	GF0527214	2.7K $\Omega$
R739	1	1	1	GF0527214	2.7K $\Omega$
R740	1	1	1	GF0533214	3.3K $\Omega$
R741	1	1	1	GF0533214	3.3K $\Omega$
R742	1	1	1	GF0510114	100 $\Omega$
R743	1	1	1	GF0510114	100 $\Omega$
R744	1	1	1	GF0510114	100 $\Omega$
R745	1	1	1	GF0510114	100 $\Omega$
R746	1	1	1	GJ0510002	10 $\Omega$ $\pm 5\%$ , 2W
R747	1	1	1	GJ0510002	10 $\Omega$ $\pm 5\%$ , 2W
R748	1	1	1	GF0510014	10 $\Omega$
R749	1	1	1	GF0510014	10 $\Omega$
R750	1	1	1	GF0522112	220 $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R751	1	1	1	GF0522112	220 $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R752	1	1	1	GF0522112	220 $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R753	1	1	1	GF0522112	220 $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R754	1	1	1	GF0510014	10 $\Omega$
R755	1	1	1	GF0510014	10 $\Omega$
R756	1	1	1	GX1022203	0.22 $\Omega$ $\pm 10\%$ , 3W
R757	1	1	1	GX1022203	0.22 $\Omega$ $\pm 10\%$ , 3W
R758	1	1	1	GX1022203	0.22 $\Omega$ $\pm 10\%$ , 3W
R759	1	1	1	GX1022203	0.22 $\Omega$ $\pm 10\%$ , 3W
R760	1	1	1	RC1039212	3.9K $\Omega$ $\pm 10\%$ , $\frac{1}{2}W$
R761	1	1	1	RC1039212	3.9K $\Omega$ $\pm 10\%$ , $\frac{1}{2}W$
R762	1	1	1	GF0522014	22 $\Omega$
R763	1	1	1	GF0522014	22 $\Omega$
R764	1	1	1	RC1002212	2.2 $\Omega$ $\pm 10\%$ , $\frac{1}{2}W$
R765	1	1	1	RC1002212	2.2 $\Omega$ $\pm 10\%$ , $\frac{1}{2}W$
R766	1	1	1	RA0201005	Trimming, 200 $\Omega$ (B)
R767	1	1	1	RA0201005	Trimming, 200 $\Omega$ (B)
<b>P700—CAPACITORS</b>					
C701	1	1	1	EE3350251	Electrolytic, 3.3 $\mu F$ $\pm 20\%$ , 25V
C702	1	1	1	EE3350251	Electrolytic, 3.3 $\mu F$ $\pm 20\%$ , 25V
C703	1	1	1	DD1620101	Ceramic, 200PF $\pm 10\%$ , 50V
C704	1	1	1	DD1620101	Ceramic, 200PF $\pm 10\%$ , 50V
C705	1	1	1	EA1060359	Electrolytic, 10 $\mu F$ $\pm 100\%$ , -10%, 35V
C707	1	1	1	DD1003050	Ceramic, 3PF, 500V
C708	1	1	1	DD1003050	Ceramic, 3PF, 500V
C709	1	1	1	EA4760509	Electrolytic, 47 $\mu F$ $\pm 100\%$ , -10%, 50V
C710	1	1	1	EA4760509	Electrolytic, 47 $\mu F$ $\pm 100\%$ , -10%, 50V
C711	1	1	1	EE4760162	Electrolytic, 47 $\mu F$ $\pm 20\%$ , 16V
C712	1	1	1	EE4760162	Electrolytic, 47 $\mu F$ $\pm 20\%$ , 16V
C713	1	1	1	ED2270509	Electrolytic, 220 $\mu F$ $\pm 50\%$ , -10%, 50V
C714	1	1	1	ED2270509	Electrolytic, 220 $\mu F$ $\pm 50\%$ , -10%, 50V
C719	1	1	1	DK1610150	Ceramic, 100PF
C720	1	1	1	DK1610150	Ceramic, 100PF
C721	1	1	1	DF1710452	Film, 0.1 $\mu F$ , 200V
C722	1	1	1	DF1710452	Film, 0.1 $\mu F$ , 200V
C725	1	1	1	DF1610205	Film, 0.001 $\mu F$ $\pm 10\%$ , 50V
C726	1	1	1	DF1610205	Film, 0.001 $\mu F$ $\pm 10\%$ , 50V
<b>P700—SEMICONDUCTORS</b>					
H701	1	1	1	HT107631B	Transistor, 2SA763 4.5
H702	1	1	1	HT107631B	Transistor, 2SA763 4.5
H703	1	1	1	HT107631B	Transistor, 2SA763 4.5
H704	1	1	1	HT107631B	Transistor, 2SA763 4.5
H705	1	1	1	HT308753B	Transistor, 2SC875 C,D,E
H706	1	1	1	HT308753B	Transistor, 2SC875 C,D,E
H707	1	1	1	HT309451Q	Transistor, 2SC945 Q
H708	1	1	1	HT309451Q	Transistor, 2SC945 Q
H709	1	1	1	HT107331Q	Transistor, 2SA733 Q
H710	1	1	1	HT107331Q	Transistor, 2SA733 Q
H711	1	1	1	HT309591L	Transistor, 2SC959 M,L,K
H712	1	1	1	HT309591L	Transistor, 2SC959 M,L,K
H713	1	1	1	HT106061L	Transistor, 2SA606 M,L,K
H714	1	1	1	HT106061L	Transistor, 2SA606 M,L,K
H715	1	1	1	HD3003009	Diode, WZ-177
H716	1	1	1	HV0000312	Varistor, MV-13
H717	1	1	1	HV0000312	Varistor, MV-13
H718	1	1	1	HD2000221	Diode, 1S2472 (Gr)
H719	1	1	1	HD2000221	Diode, 1S2472 (Gr)
H720	1	1	1	HT307351C	Transistor, 2SC735 Y
H721	1	1	1	HT307351C	Transistor, 2SC735 Y
H722	1	1	1	HD2000221	Diode, 1S2472 (Gr)
H723	1	1	1	HD2000221	Diode, 1S2472 (Gr)
H724	1	1	1	HD2000221	Diode, 1S2472 (Gr)
H725	1	1	1	HD2000221	Diode, 1S2472 (Gr)
H727	1	1	1	HH0000812	Thermistor, 21 D 28
H728	1	1	1	HH0000812	Thermistor, 21 D 28
<b>P700—MISCELLANEOUS</b>					
L701	1	1	1	LC2272001	Coil, 2.7 $\mu H$
L702	1	1	1	LC2272001	Coil, 2.7 $\mu H$
J701	1	1	1	YP1000113	Plug
J730	1	1	1	YP1000113	Plug
<b>POWER SUPPLY CIRCUIT BOARD—P800</b>					
P800	1	1	1	YD2916002	P.W. Board, Power Supply (Print Only)
	1	1	1	ZZ2927202	P.W. Board Assembly
<b>P800—RESISTORS</b>					
R801	1	1	1	GF0510012	10 $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R802	1	1	1	RT0547214	4.7K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R803	1	1	1	RT0547214	4.7K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R804	1	1	1	RT0539214	3.9K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R805	1	1	1	RT0522314	22K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R806	1	1	1	RA0502013	Trimming, 5K $\Omega$ (B)
R807	1	1	1	GS1015105	150 $\Omega$ $\pm 10\%$ , 5W
R808	1	1	1	RT0533214	3.3K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R809	1	1	1	RT0510014	10 $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$
R810	1	1	1	RT0518314	18K $\Omega$ $\pm 5\%$ , $\frac{1}{2}W$

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
R811	1	1	1	RT0515314	15K $\Omega$ $\pm$ 5%, 1/4W
R812	1	1	1	RT0568214	6.8K $\Omega$ $\pm$ 5%, 1/4W
R813	1	1	1	RT0524414	240K $\Omega$ $\pm$ 5%, 1/4W
R814	1	1	1	RT0539314	39K $\Omega$ $\pm$ 5%, 1/4W
R815	1	1	1	GU0547112	470 $\Omega$ $\pm$ 5%, 1/2W
R816	1	1	1	GU0556212	5.6K $\Omega$ $\pm$ 5%, 1/2W
R817	1	1	1	GU0556212	5.6K $\Omega$ $\pm$ 5%, 1/2W
R818	1	1	1	RT0556214	5.6K $\Omega$ $\pm$ 5%, 1/4W
<b>P800-CAPACITORS</b>					
C801	1	1	1	EA2270631	Electrolytic, 220 $\mu$ F, 63V
C802	1	1	1	EA1070509	Electrolytic, 100 $\mu$ F, 50V
C803	1	1	1	DK1810351	Film, 0.01 $\mu$ F, 50V
C804	1	1	1	EA2260359	Electrolytic, 22 $\mu$ F, 35V
C805	1	1	1	EA3370509	Electrolytic, 330 $\mu$ F, 50V
C806	1	1	1	EA4770169	Electrolytic, 470 $\mu$ F, 16V
C807	1	1	1	EA4750509	Electrolytic, 4.7 $\mu$ F, 50V
C808	1	1	1	EA4760169	Electrolytic, 47 $\mu$ F, 16V
C809	1	1	1	EA2270109	Electrolytic, 220 $\mu$ F, 10V
C810	1	1	1	DK1810351	Ceramic, 0.01 $\mu$ F, 200V
<b>P800-SEMICONDUCTORS</b>					
H801	1	1	1	HT403302A	Transistor, 2SD330 DE
H802	1	1	1	HT313183A	Transistor, 2SC1318 P,Q,R
H803	1	1	1	HT309452A	Transistor, 2SC945 Q,R
H804	1	1	1	HT403314A	Transistor, 2SD331 C,D,E,F
H805	1	1	1	HT309452A	Transistor, 2SC945 Q,R
H806	1	1	1	HT313182R	Transistor, 2SC1318 R,S
H807	1	1	1	HT313182R	Transistor, 2SC1318 R,S
H808	1	1	1	HD2001103	Diode, DS131-B
H809	1	1	1	HD3002309	Diode, WZ-071
H810	1	1	1	HD3002709	Diode, WZ-140
H811	1	1	1	HD2001103	Diode, DS131B
H812	1	1	1	HD2000321	Diode, IS2471
<b>P800-MISCELLANEOUS</b>					
L801	1	1	1	LY2024006	Relay, MY2, 24V
J801	1	1	1	YP1000113	Plug
J810	1	1	1		
<b>GENERAL MISCELLANEOUS</b>					
R001	1	1	1	RS0504002	Variable Resistor, BALANCE
R002	1	1	1	RM0254022	Variable Resistor, VOLUME
R003	1	1	1	RC1022512	Resistor, 2.2M $\Omega$ $\pm$ 10%, 1/2W
R004	1	1	1	GF0515112	Resistor, 150 $\Omega$ $\pm$ 5%, 1/2W
R005	1	1	1	RT0520214	Resistor, 2K $\Omega$ $\pm$ 5%, 1/4W
C001	1	1	1	EC1090502	Electrolytic Cap., 10,000 $\mu$ F, 50V
C002	1	1	1	EC1090502	Electrolytic Cap., 10,000 $\mu$ F, 50V
C003	1	1	1	DK1710301	Ceramic Cap., 0.01 $\mu$ F $\pm$ 20%, 50V
C004	1	1	1	DK1710301	Ceramic Cap., 0.01 $\mu$ F $\pm$ 20%, 50V
C005	1	1	1	DK1840301	Ceramic Cap., 0.04 $\mu$ F, 50V
C006	1	1	1	DF1722380	Film Cap., 0.022 $\mu$ F $\pm$ 20%, 1000V
C007	1	1	1	DK1810351	Ceramic Cap., 0.01 $\mu$ F $\pm$ 20%, 500V
G001	1	1	1	BF1040003	Printed Comp.
M001	1	1	1	IM1104208	Meter, AM/FM
M002	1	1	1	IN1008030	Lamp, Pointer
M003	1	1	1	IN1008034	Lamp, Stereo Indicator
M004	1	1	1	IN1008007	Lamp, Meter
L001	1	1	1	LF1120038	Antenna Coil, AM
L002	1	1	1	LC1332002	Choke Coil 3.3 $\mu$ H
L003	1	1	1	LC1332002	Choke Coil 3.3 $\mu$ H

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
L004	1	1	1	TS1960213	Power Transf., UL, CSA
L004	1	1	1	TS1960214	Power Transf.,
H001	1	1	1	HT308971B	Transistor, 2SC897 B, C
H002	1	1	1	HT308971B	Transistor, 2SC897 B, C
H003	1	1	1	HT107571B	Transistor, 2SA757 B, C
H004	1	1	1	HT107571B	Transistor, 2SA757 B, C
H005	1	1	1	HV0000308	Varistor, SV-02
H006	1	1	1	HV0000308	Varistor, SV-02
H007	1	1	1	HD2000510	Diode, 5B-2
H008	1	1	1	HD2001105	Diode, 1S1555
S002	1	1	1	SR1005008	Rotary Switch, Selector
S001	1	1	1	SP0201015	Power Switch
F001	1	1	1	FS1040005	Fuse, 4A, MGC
F002	1	1	1	FS2050090	Fuse, 5A, SLA
W001	1	1	1	YC0240010	AC Cord
W001	1	1	1	YC0190003	AC Cord
J001	1	1	1	YT0204008	Terminal, 4P, Pin Jack
J002	1	1	1	YT0208006	Terminal, 8P, Pin Jack
J003	1	1	1	YT0201009	Terminal, 1P, Pin Jack
J004	1	1	1	YT0204011	Terminal, 4P, Pin Jack
J006	1	1	1	YT0304006	Terminal, Speaker
J007	1	1	1	YT0304006	Terminal, Speaker
J008	1	1	1	YJ0400048	Jack, AC Outlet
J009	1	1	1	YJ0400048	Jack, AC Outlet
J010	1	1	1	YJ0800012	Socket, Fuse Holder
J011	1	1	1	YJ0100081	Socket, DUBBING IN
J012	1	1	1	YJ0100098	Socket, DUBBING OUT
J013	1	1	1	YJ0100098	Headphone
J014	1	1	1	YJ0500020	Socket, Transistor
J015	1	1	1	YJ0500020	Socket, Transistor
J016	1	1	1	YJ0500020	Socket, Transistor
J017	1	1	1	YJ0500020	Socket, Transistor
J018	1	1	1	YL0103018	Terminal, 3P
J019	1	1	1	YT0101003	Terminal, Chassis Ground
J020	1	1	1	YJ0800019	Socket, Lamp
J021	1	1	1	YL0106004	Terminal, Voltage Conversion
<b>FUSE CIRCUIT BOARD-PR01</b>					
PR01	1	1	1	YD2871003	P.W. Board, Fuse (Print Only)
PR01	1	1	1	ZZ2871803	P.W. Board Assembly
<b>PR01-MISCELLANEOUS</b>					
JR01	1	1	1	YJ0800020	Jack
JR02	1	1	1	YJ0800020	Jack
JR03	1	1	1	YJ0800020	Jack
JR04	1	1	1	YJ0800020	Jack
JR05	1	1	1	YJ0800020	Jack
JR06	1	1	1	YJ0800020	Jack
JR07	1	1	1	YJ0800020	Jack
JR08	1	1	1	YJ0800020	Jack
JR09	1	1	1	YP1000099	Plug
JR10	1	1	1	YP1000099	Plug
JR11	1	1	1	YP1000099	Plug
JR12	1	1	1	YP1000099	Plug
JR13	1	1	1	YP1000099	Plug
JR14	1	1	1	YP1000099	Plug
JR15	1	1	1	YP1000099	Plug
JR16	1	1	1	YP1000099	Plug

U: For U.S.A.  
C: For Canada  
E: For Europe

REF. DESIG.	QTY.			PART NO.	DESCRIPTION
	U	C	E		
FR01			1	FS1040090	Fuse, 4A, SGA
FR02			1	FS1010090	Fuse, 1A, SGA
FR03			1	FS1010090	Fuse, 1A, SGA
FR04			1	FS1040090	Fuse, 4A, SGA

## 11. TECHNICAL SPECIFICATIONS

### AMPLIFIER SECTION

Rated Power Output	35 Watts per channel, continuous average power, both channels driven.
Power Band	20 Hz to 20 kHz
Total Harmonic Distortion	0.25%
Load Impedance	8 ohms
Intermodulation Distortion at rated power	0.5%
Damping Factor	.45
Frequency Response	20 Hz to 20 kHz $\pm 1.0$ dB

### PREAMPLIFIER SECTION

#### Phono:

Dynamic Range	96 dB
---------------	-------

Note: Dynamic Range is the ratio in dB of the phono input overload to equivalent input noise.

Equivalent Input Noise	1.5 $\mu$ V
------------------------	-------------

Input Overload	100 mV
----------------	--------

#### Sensitivities (for rated power output)

Phono	1.8 mV
-------	--------

Tape	180 mV
------	--------

Main In	1.0 V
---------	-------

Frequency Response (phono)	30 Hz to 15 kHz $\pm 1.0$ dB
----------------------------	------------------------------

#### Input Impedances

Phono	47 K ohms
-------	-----------

Aux or Tape	100 K ohms
-------------	------------

Main In	30 K ohms
---------	-----------

Tape Output Level	775 mV
-------------------	--------

Ref.: 7.75 mV at phono input

#### Signal to Noise Ratio

Aux Input	80 dB
-----------	-------

Phono Input	65 dB
-------------	-------

#### Tone Controls

Bass: 50 Hz	$\pm 10$ dB
-------------	-------------

Mid: 700 Hz	$\pm 6$ dB
-------------	------------

Treble: 15 kHz	$\pm 10$ dB
----------------	-------------

### FM TUNER SECTION

#### Quieting Slope

RF Input for 30 dB Quieting	1.9 $\mu$ V
-----------------------------	-------------

Quieting at 5 $\mu$ V RF Input	52 dB
--------------------------------	-------

Quieting at 10 $\mu$ V RF Input	58 dB
---------------------------------	-------

Quieting at 50 $\mu$ V RF Input	68 dB
---------------------------------	-------

#### Total Harmonic Distortion

Mono:	0.3%
-------	------

Stereo:	0.5%
---------	------

Selectivity (alternate carrier)	65 dB
---------------------------------	-------

Capture Ratio	1.5 dB
---------------	--------

Stereo Separation at 1 kHz	40 dB
----------------------------	-------

Spurious Rejection	95 dB
--------------------	-------

Image Rejection	70 dB
-----------------	-------

IF Rejection	90 dB
--------------	-------

AM Suppression	50 dB
----------------	-------

### AM TUNER SECTION

Sensitivity	20 $\mu$ V
-------------	------------



## GENERAL

Power Requirements ..... 120 V AC, 50/60 Hz

Power Consumption at rated output, both channels operating ..... 180 Watts

Idling Power (Volume Control at zero) ..... 30 Watts

### Dimensions:

Panel Width ..... 17-3/8 inches

Panel Height ..... 5-3/8 inches

Depth ..... 14 inches

### Weight:

Unit alone ..... 26.4 lbs.

Packed for shipment ..... 36.4 lbs.

## 12. SERVICE INFORMATION FOR EUROPEAN MODEL

The information contained herein includes the fuse assembly PR01, rear panel and main chassis component locations, voltage conversion, FTZ regulation, and circuit diagram.

For the alignment method and repairing hints, refer to the original service manual.

### TABLE OF CONTENTS

PR01 Circuit Diagram .....	39
Fuse Board—PR01 Component Assembly Diagram .....	39
Rear Panel Jacks and Component Locations .....	40
Main Chassis Component Locations (Bottom View) .....	40
Voltage Conversion .....	41
Voltage Conversion Chart .....	41
FTZ Regulation .....	41
Circuit Diagram .....	42~43
Technical Specifications .....	44~45

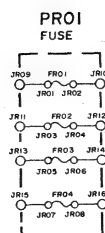


Figure 39. PR01 Circuit Diagram

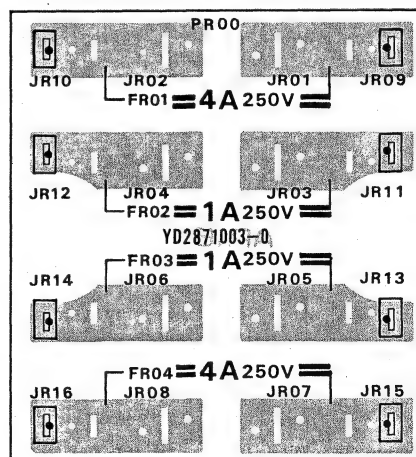


Figure 40. Fuse Board — PR01 Component Assembly Diagram

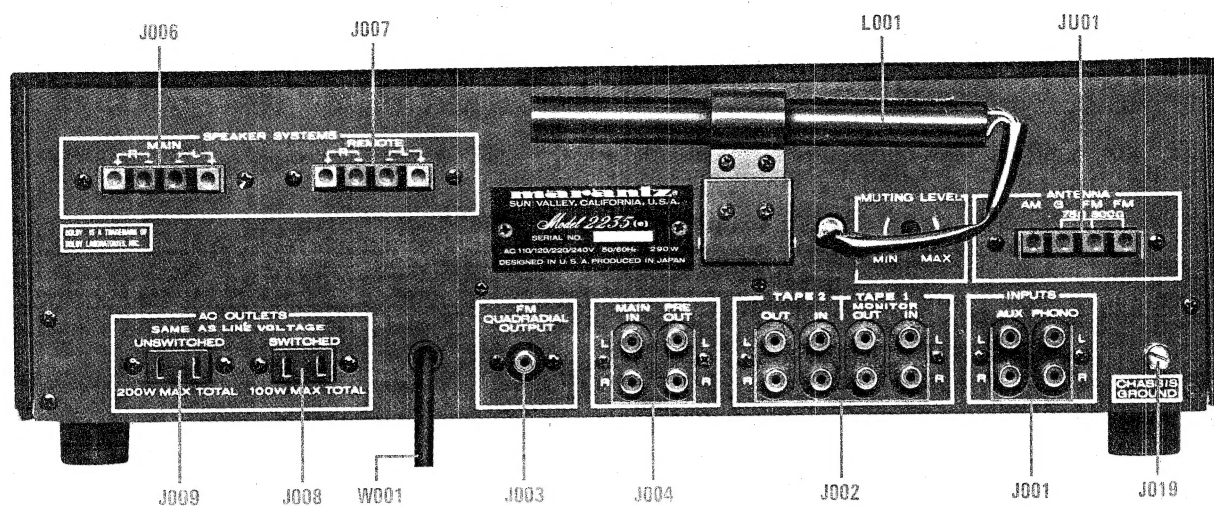


Figure 41. Rear Panel Jacks and Component Locations

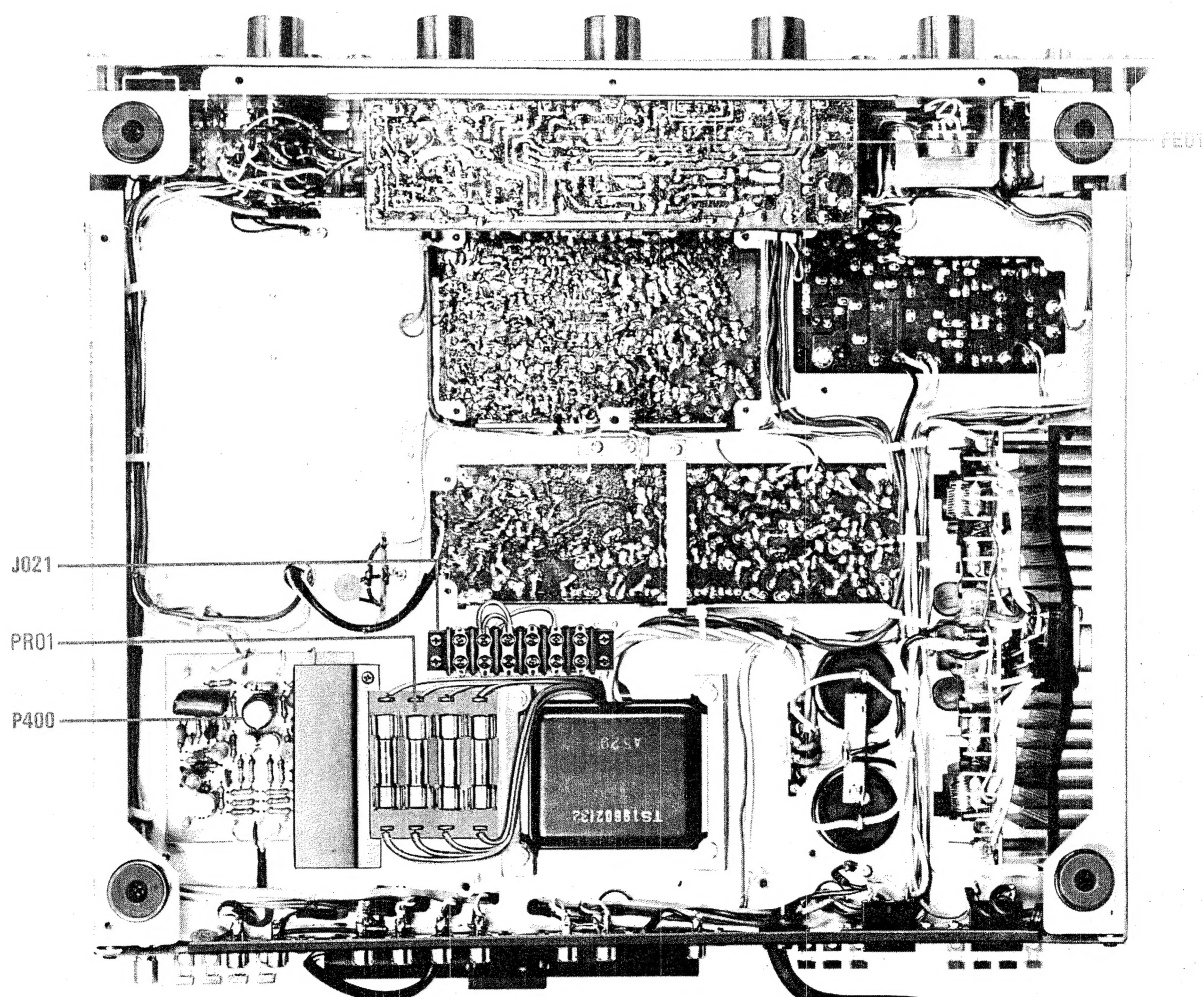


Figure 42. Main Chassis Component Locations (Bottom View)

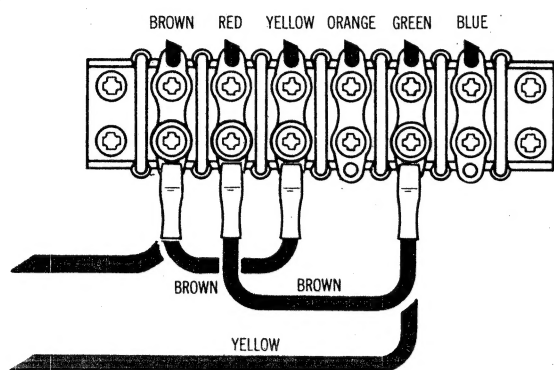
## VOLTAGE CONVERSION

This model is equipped with a universal power transformer to permit operation at 110, 120, 220 and 240 V AC 50 to 60 Hz.

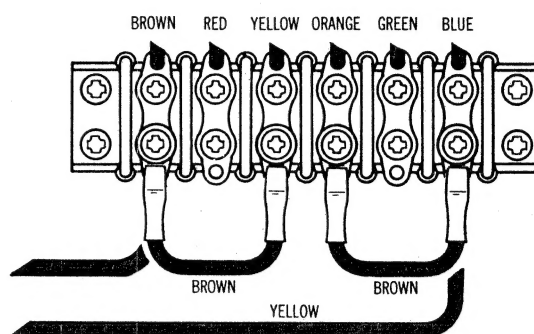
To convert the unit to the required voltage perform the following steps:

- (1) Remove the lid (top).
- (2) Change the jumper wires as illustrated below for the required AC voltage.

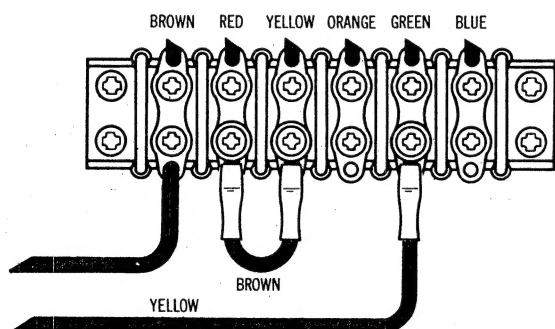
**CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.**



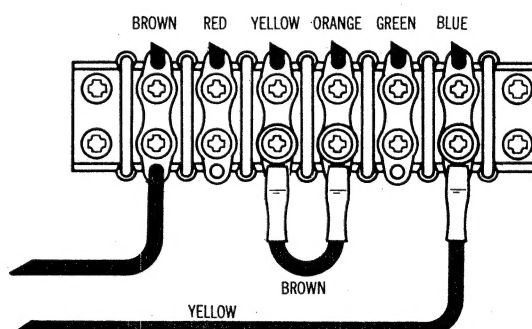
For 110V Operation



For 120V Operation



For 220V Operation



For 240V Operation

Figure 43. Voltage Conversion Chart

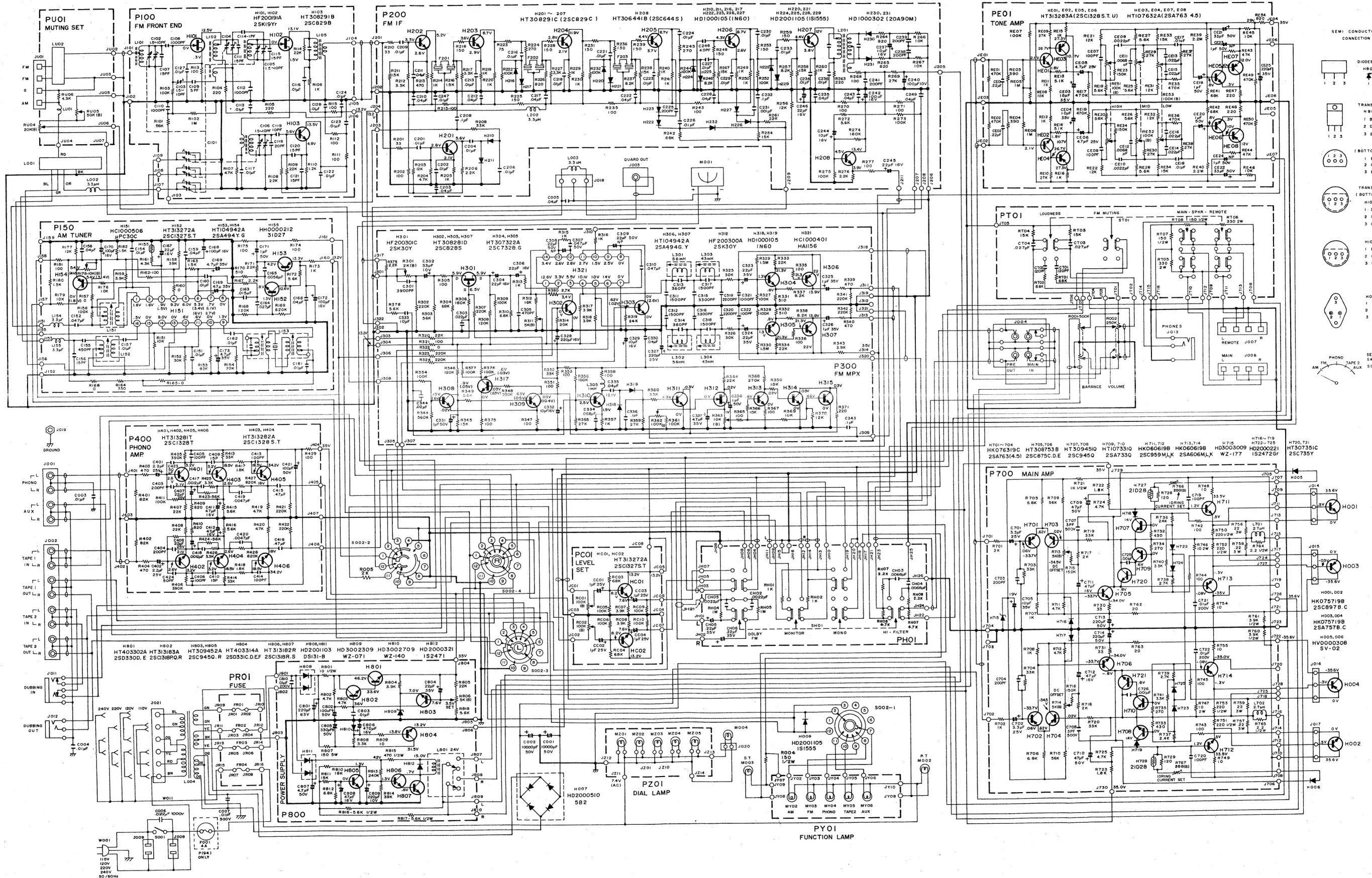
## FTZ REGULATION

Instruction for the use in the range other than specified in FTZ codes

Achtung für die Leute, die in dem Gebiet wohnen, wo die FTZ-Bestimmungen vorherrschend sind.

Sollte das Gerät auch für Frequenzen ausserhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangsbereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorschule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.





## TECHNICAL SPECIFICATIONS

## AMPLIFIER SECTION

Rated Power Output	35 Watts per channel, continuous average power, both channels driven
Power Band	20 Hz to 20 kHz
Total Harmonic Distortion	0.25%
Load Impedance	8 ohms
Intermodulation Distortion at rated power	0.5%
Damping Factor	45
Frequency Response	20 Hz to 20 kHz $\pm 1.0$ dB

## PREAMPLIFIER SECTION

Phono:	
Dynamic Range	96 dB
Note: Dynamic Range is the ratio in dB of the phono input overload to equivalent input noise.	
Equivalent Input Noise	1.5 $\mu$ V
Input Overload	100 mV
Sensitivities (for rated power output)	
Phono	1.8 mV
Tape	180 mV
Main In	1.0 V
Frequency Response (phono)	30 Hz to 15 kHz $\pm 1.0$ dB
Input Impedances	
Phono	47 k ohms
Aux or Tape	100 k ohms
Main In	30 ohms
Tape Output Level	775 mV
Ref.: 7.75 mV at phono input	
Signal to Noise Ratio	
Aux Input	80 dB
Phono Input	65 dB
Tone Controls	
Bass: 50 Hz	$\pm 10$ dB
Mid: 700 Hz	$\pm 6$ dB
Treble: 15 kHz	$\pm 10$ dB

## FM TUNER SECTION

Sensitivity (DIN)	2.1 $\mu$ V
Quieting Slope	
RF Input for 30 dB Quieting	1.9 $\mu$ V
Quieting at 5 $\mu$ V RF Input	52 dB
Quieting at 10 $\mu$ V RF Input	58 dB
Quieting at 50 $\mu$ V RF Input	68 dB
Total Harmonic Distortion	
Mono:	0.3%
Stereo:	0.5%
Selectivity (alternate carrier)	65 dB
Capture Ratio	1.5 dB
Stereo Separation at 1 kHz	40 dB
Spurious Rejection	95 dB
Image Rejection	70 dB
IF Rejection	90 dB
AM Suppression	50 dB

## AM TUNER SECTION

Sensitivity	20 $\mu$ V
-------------	------------

## GENERAL

Power Requirements	220 V $\sim$ , 50/60 Hz
Power Consumption at rated output, both channels operation	180 Watts
Idling Power (Volume Control at zero)	30 Watts
Dimensions:	
Panel Width	440 mm
Panel Height	137 mm
Depth	356 mm
Weight:	
Unit alone	10.5 kg
Packed for shipment	13.5 kg